Christopher David Bidwell
Software, Security and Network Engineer, I.T. Professional.

DOB: 1984   Address: London
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Education
- 09/2002 – 06/2006: University of Manchester, Manchester.
  BSc Computer Science with Industrial Experience (Hons). Result: 2:1.
- 09/2000 – 07/2002: Oldham Sixth Form College, Oldham.
  A2: Computing (B), Maths (B), Physics (C).   AS: Electronics (A), Further Maths (C).

Additional Information
- German, French (written & spoken)
- Programming Languages:
  C, C++, C#, Java, Visual Basic
  ASM (ARM processors)
- Scripting & Markup/Meta Languages:
  (X)HTML/CSS, ASP/PHP/SQL,
  BASH, Perl, JavaScript, VBScript

- Keen interest in host and network security
- Trained and mentored colleagues
- OS:
  Microsoft DOS through to Windows 8.2, Server 2012
  Unix (Linux, BSD, Solaris), MacOS, VxWorks
- Network platforms:
  Cisco Catalyst, Nexus; Arista 7050, 7150

- Training Courses, Conferences:
  Cisco CCNA, CCNP, CCDA, CCDP, BGP, MPLS, Cat6500, N5K, N7K, FabricPath.
  Sharkfest attendee (2012 – 2015), presenter (2015)
  Riverbed Cascade/SteelCentral Technical Advisory Council (2013 – 2015)
  CiscoLive! attendee (2011)
  Personal Effectiveness Development. (PWC, 2005: team-building, presentation skills, negotiation)
- Technical Knowledge/Experience:
  Presenting – Sharkfest15: Root Cause In Complex Networks (June 2015).
    UCL Computing Dept: Introduction to Network Troubleshooting (2009).
  Networking – experienced with multicast, VPNs, firewalls and appliances, complex network design and construction, rack organisation & structured cabling, high-performance testing and information and network security technologies. Designed, procured, installed and maintained a global network of high-performance compute capability separated by modern encryption technologies over many varieties of WAN connectivity utilising optimisation and packet-level monitoring capabilities to support investigation of sub-second network incidents.
    Experienced with resource sharing (printer, internet access and storage), DNS, DHCP, proxies, email provision, website hosting and management.
  Embedded Systems Development – experience with Integrated Circuit Emulators for low-level control and recovery of embedded devices, remote debugging using gdb and firmware methodologies.
  Software Engineering – worked to port third party software written for Linux (PowerPC architecture) to VxWorks (x86 architecture), including integrating with another vendor and their software.
    Developed applications for Windows and Linux for use by development teams and support staff.
    Created a proof-of-concept for automatic quarantine of a virus- or worm-infected network host using Perl, an SNMP toolkit and FreeRADIUS, with infection-detection by Snort or an IPS solution.
    Implemented a Network Configuration Change Audit tool which grouped and diffed network device configuration versions, cross-referenced against AAA Accounting records and syslog to identify the responsible engineer, with comment and command-history comment tagging for self-description of a change.
  Systems Administration – 15+ years of experience in installing, maintaining, repairing, scripting and customising Microsoft Windows and Unix-based systems.

Employment & Experience

- April 2010 – June 2015: G-Research, London   *Network Engineer*
  Senior Network Engineer responsible for and technically expert in all aspects of complex network design, implementation, maintenance and migrations scaling from small high-performance to large 10-40Gbps LANs in over 15 countries connected via encrypted WANs. Well-respected packet-level troubleshooter with excellent understanding of complex system interactions. Responsibilities included security vulnerability assessment and remediation from low-latency algorithmic trading infrastructure to heavily defended perimeter-facing networks. Owned relationships with Arista Networks, Riverbed Technology; member of customer advisory boards and early-access programmes. Deployed first pre-production VXLAN +MLAG +Routing DCS-7050SX environment with Arista Networks engineering. Experience with AAA (TACACS+) through to ZeroTouchProvisioning.
- October 2009 – April 2010: Bank of America Merrill Lynch, London.   *Design Team Lead*
  Technical Lead on projects for Equities & Electronic Trading domains (across the globe), developing Business Requirements into Technical Requirements and producing standards-compliant Infrastructure Designs with the aid of global Subject Matter Experts.
- July 2006 – October 2009: Merrill Lynch Europe, London.   *Network Engineer, Technology Analyst*
  Third-line EMEA network support, managing outsourced first/second-line support functions, performing on-site support, resolving major network incidents and planning, implementing and analysing network monitoring for time-critical applications across enterprise infrastructure. Extensive proactive and remedial work to address audit points, known faults, software upgrade and standardisation strategies. Performed deep-dive analysis and follow-up reviews.
  Worked closely with the Equities business as Networks SME and regularly troubleshot and diagnosed problems with low-latency trading apps and infrastructure across multiple disciplinary teams.
  Co-ordinated, participated in and supported power-down and C&R activities for data-centre and office facilities, managed vendor relations, project handovers and project implementations. Maintained internal quality and information control systems and developed training materials for new-starters as well as process documents in line with GSM/ITIL practices. 'Buddy' to intern and graduate colleagues.
- October 2005 – June 2006: UKChoice Ltd, Manchester.   *Software Engineer, Network Admin*
  Maintained several in-house projects, developed and maintained the network infrastructure and built an automated telephone number dialling application based on open source PBX solution Asterisk.
- August 2004 – August 2005: 3Com Europe Ltd, Hemel Hempstead.   *Software Engineer*
  Industrial placement working in the Secure Networks engineering team as a software engineering intern on an embedded firewall/VPN termination networking device. Responsibilities included building, testing and distributing device firmware, liaising with partner companies and other teams internally, developing tools for use in-house, specifying and implementing Command Line Interface functionality.
- December 2003 – August 2004: UKChoice Ltd, Manchester.   *Software Engineer, Network Admin*
  Designed and developed an intranet-based (database- and PHP-driven) sales tool.
  Other responsibilities included installing and administering a Linux server for transparent proxying, web content filtering and email virus scanning, deployment of a domain comprising Active Directory and roaming profiles, and installation of the in-office music system. Additionally responsible for PC builds, app/system troubleshooting and all network-related development and maintenance.
- Summer 2003: WSL Printing, Brighton.   *Programmer (Freelance)*
  Joint lead-programmer on a web-based ordering system to automate the process of ordering business stationery. Key responsibilities include handling all aspects, such as requirements analysis, to design and implementation. Implementation included access control, dynamic database-driven content, dynamic product proofing (image-based) and integration with Adobe InDesign documents via XML.

External References on request.