

Mark Abrahams



Business profile

During his ten years in the IT industry Mark has commanded a wide variety of technologies in the design and deployment of business and infrastructure solutions. He has held consultancy, designer and administrative roles within the travel, financial, telecommunications and transport sectors.

Mark's areas of expertise include security consultancy, network design, infrastructure integration, business-to-business solutions, Web infrastructure, network management tools, system administration, and application development.

Professional experience

Network infrastructure design and management

- Designed and implemented WAN infrastructure solutions such as bandwidth management and security, for remote branch sites and for business partner connections.
- Designed and implemented enterprise-level core and access LAN infrastructure solutions.
- Network integration of acquired companies and joint ventures into parent company.
- Evaluated, selected, deployed and configured enterprise network management tools for alarming, reporting, inventory and forecasting.
- Designed and implemented international company-wide network services policy e.g. IP addressing, DNS, NTP, SNMP.
- Designed and implemented solutions for the interoperation of disparate protocols within a single network environment e.g. IP, IPX, DLSw, STUN.
- Reviewed data centre network environment and advised on best practices.

Mark brings consultancy, design and technical skills for network infrastructure and security solutions.

Security consultancy

- Provided security consultancy to projects at feasibility, design and build phases.
- Conducted security reviews of solution architectures, requirements documentation and design/build documentation.

Security solution design and management

- Designed Internet-based connectivity solutions and managed firewalls for enterprise-level network environments.
- Designed and configured secure connections to business partners for file transfer and other application access.
- Designed and developed applications for file processing and information interchange with external parties.

Network and system administration

- Installed system-monitoring software and configured firewall components to adhere to company security policy.
- Performed system administration tasks on both Unix and Windows NT platforms such as user account maintenance, system monitoring, backups, scripting, DNS and mail configuration, and log analysis.
- Resolved problems and handled work request processes for business partners and staff.
- Deployed Web applications (Netscape Web server, BEA Weblogic and Oracle database), and provided Web infrastructure support and problem resolution.

Application design and deployment

- Designed and implemented log file analysis and consolidation software.
- Designed and implemented bandwidth calculation software.
- Designed and implemented real-time graphical network monitoring software.
- Designed, developed, tested and documented systems for browsing digital libraries, for on-line learning and for a machine-learning research workbench in an educational setting.

Technical environments

Skills in a broad range of technical environments.

Networks	Security
TCP/IP IPX SNA Ethernet Token Ring ISDN Frame Relay ATM MPLS	Cisco IOS and PIX appliance Checkpoint Firewall-1 SecuRemote Nokia firewall/VPN appliance Raptor firewall ISA server Bluecoat proxy IPsec, SSH, SSL/TLS, PGP IP chains, IP tables
Operating Systems	Languages
Windows 3.x, 95, 98, ME Windows NT 4.0, 2000, 2003 Linux 2.2, 2.4, 2.6 Solaris 2.5, 2.6 and 7 RHEL, SLES, Debian, Ubuntu Citrix MetaFrame 1.8, XP Novell Netware 4.x, 5.x Cisco IOS, CatOS	C and C++ Pascal and Modula-2 Java HTML and Javascript Tcl/Tk Perl and Python Unix shells (sh, csh, ksh, bash) Awk MIPS and 68000 Assembly

Qualifications

Leading industry and academic qualifications.

- CCIE #19070 - Cisco Certified Internetwork Expert (Routing and Switching)
- CCNP - Cisco Certified Network Professional
- CCNA - Cisco Certified Network Associate
- CCSE - Checkpoint Certified System Engineer (4.0)
- CCSA - Checkpoint Certified System Administrator (4.0)
- MCSE - Microsoft Certified System Engineer (NT4 and 2000)
- M.Sc. (Comp. Sci.) First Class Honours (A+ average)
- B. Sc. (Comp. Sci.) (A+ average)

Career Background

Dec 2008 – present (contract)

Network Engineer – KiwiRail

Mark provides network engineering services to KiwiRail after the recent NZ government buy-back. Current assignments are designing and implementing a comprehensive log management solution, review and remediation of the data centre network environment, and network management tools evaluation and selection.

Experience in network infrastructure, security, network management and system administration.

Aug 2008 – Nov 2008 (3 mth contract + 1 mth extension)

Security Consultant – Vodafone

Mark provided consultancy to Vodafone project initiatives at the feasibility, design and build phases of projects, to ensure that Vodafone information is handled appropriately. Part of this involved conducting security reviews of solution architectures, requirements documentation, and design and build documentation. The role requires oral and written presentation and discussion of security principles and issues with various parties within Vodafone as well as their suppliers.

May 2005 – Aug 2008

Network Designer - Suncorp, Auckland, New Zealand

Mark continued his tenure at Promina as a full-time employee in the Network and Communications team. During this period, Suncorp acquired Promina, which saw Mark as the lead New Zealand engineer on the trans-Tasman network integration team.

Key achievements in this period were:

- Collaboration with Suncorp network integration team and Cisco consultancy services to produce a network transport architecture for Suncorp.
- Definition of Cisco hardware and software standards for data centre and branch sites.
- Audit and remediation of NZ data centre core switching environment.
- Design of integrated trans-Tasman IP address schema.
- Vendor evaluation, selection and migration to a redundant point-to-point trans-Tasman network solution.

- Vendor evaluation, selection, deployment and configuration of enterprise network management tools (tools implemented were CA eHealth, CA Spectrum, Compuware NetworkVantage).
- Implementation of application response monitoring.

Feb 1999 – May 2005

Consultant - Optimization New Zealand Limited, Auckland, New Zealand

For the final three years with Optimization, Mark was a part of the Network and Communications team at Promina (formerly Royal & Sun Alliance). This involved designing WAN, LAN and security solutions within the Promina network environment, which spans multiple companies and locations throughout Australasia. In addition, he has had implementation and support responsibilities in these areas, working with technologies from vendors such as Checkpoint, Cisco, Nokia and Nortel.

Mark's key achievements in this period were:

- Technical lead for the NZ migration of Promina's WAN environment (approximately 50 sites) from a provider-managed Frame Relay network to an MPLS-based network managed in-house.
- Migration of NZ core switching platform from Bay Networks to Cisco as part of vendor standardisation.
- NZ IP address schema design and migration of the entire enterprise network to this schema.
- Trans-Tasman link design for the move of the NZ core business platform (AS/400-based) from NZ to Australia.
- Integration of AAI (Automobile Association Insurance) and AMPG (AMP General Insurance) companies into the Promina network. This included several hundred users across various NZ branches.
- Design of trans-Tasman DNS schema.
- Implementation of daily network summarisation, condensing thousands of lines of log information into a concise summary report.
- Implementation of graphical network reporting including data collection and historical graphing of device CPU and memory utilisation, and per-port bandwidth utilisation.
- Implementation of unified real-time alerting for all devices under network team's jurisdiction including Cisco, Nokia, Checkpoint and Windows platforms.

- Design and development of real-time network performance graphing software.

For Mark's first three years at Optimization, he was as part of a team responsible for the ongoing maintenance of the Air New Zealand firewall. The predominant platforms there were Solaris and Checkpoint Firewall-1. Mark was involved in designing and implementing application-level connections to business partners through the firewall systems. Duties also included a number of administrative tasks, such as analysing reports to find possible network anomalies or intrusions, and configuring systems as access requirements to the internal network change. As a member of this team, Mark was also on an on-call roster, which maintained responsibility for the 24x7 support of the Air New Zealand Internet Web servers.

Feb 1997 – Jul 1997

Computer Science Tutor - University of Waikato, Hamilton, New Zealand

During the last year of his Masters degree Mark tutored first-year theoretical computer science. Mark conducted tutorial classes with up to thirty students in each and was involved in assignment and examination assessment.

Feb 1996 – Nov 1996

Computer Science Demonstrator - University of Waikato, Hamilton, New Zealand

During this period, Mark provided laboratory support for a second-year processor and hardware architecture course. This involved designing and teaching the architecture for a multi-tasking OS kernel.

Personal Details

Date of birth: 19 February 1976

Marital status: Married

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Interests

- God, People
- Philosophy, History
- Squash, Touch rugby
- Piano, Guitar, Music composition
- Linux, Open Source Software
- Java development
- Home theatre PC