

Stephen Harris - Curriculum Vitae

PERSONAL DETAILS

Name: Stephen William Edward HARRIS Home Address: 1-40 26th Street
Nationality: British Fair Lawn, NJ 07410
Employment Eligibility: Legal Permanent Resident (Green Card) Cellphone: (917) 715 4143

SKILLS SUMMARY

Education: BA (Hons) Oxford University, Mathematics and Computation
Primary skill: Unix Systems Admin/Engineer with a security focus; I have 17 years commercial Unix Systems Administrator and Engineering experience
Systems: Solaris 2, SunOS 4, HP-UX 10, Linux, Ultrix, Cisco IOS, NT4
Languages: sh, ksh, perl, C, Oracle PL/SQL, Java, C++, FORTRAN, Pascal
Databases: Oracle 7, Oracle 8, Postgres
Areas: Kernel configuration, TCP/IP, routing, packet filters, firewalls NFS, SMB, SMTP, sendmail, POP, NNTP, INN, HTTP, HTML, CGI, UUCP, DNS, FTP, NTP, Postscript, SNMP, LDAP

EMPLOYMENT HISTORY

Oct 2006-date: **Vice President**, JPMorganChase (*See also the CSC section below, relating to this work*)

My main role has been in the development of management software. This has included Y2K health checks, to verify the Unix infrastructure is working correctly. These tests ran over 500 servers in under 20 minutes. Related work was a mass patch solution, which would enable a patch to be distributed to collections of servers and installed, in case early warning from Japan indicated a need for a patch on London servers. Both of these routines were used on a regular basis as an additional monitoring tool to the Unicenter/TNG based monitoring, and to automate program rollout (eg TNG, sudo, tcp-wrappers) or system changes (eg root password changes), finally being decommissioned in 2007, replaced by commercial products such as ESM, Tivoli and Opsware.

My first main project was in the task of Collection and Reporting. This involved collecting information on all of the servers, detecting problems and trends, and reporting the results back in a web front end suitable for both technical and managerial review. This has involved integration with Sybase databases, and web template design methodologies. A revised code base was designed as a black box "appliance", allowing a collection server to be implemented within minutes. This solution was rolled out globally across the Investment Bank. Related to this project, I wrote various reports to provide various summaries on the status of the boxes (eg tcp wrapper rejections, root logins, su and sudo summaries, configuration vulnerabilities) which are presented on a daily basis to the various SA teams and Business Risk Managers, providing a level of auditability to the business that was otherwise difficult to achieve.

Smaller projects have included the building of a package based around TNG2.1 with site localisations and automation, web based views onto TNG CORE infrastructure (working around limitations in the TNG package), java applet based capacity report graphs, and ad-hoc scripting for both my team and other business groups. Wherever possible these requests were integrated into the main Collection and Reporting site to provide a centralised consistent view.

In the role of production support, I have acted as an unofficial third level to the rest of the team, providing additional diagnosis and proposing solutions to problems. At all stages I have attempted to explain my reasoning, to enable my colleagues to understand the problem and fault resolution methodology.

After JPMorganChase merged with Bank One, I moved into the IT controls space for the Investment Bank (IB) and am currently technical project lead for a centralised authentication and auditing system for IB Unix systems, and team leader for a group of System Administrators who are rolling this project out in New York. I manage the project specification and build tasks, as well as the coordinating the time and resources of the SAs performing the roll out.

Oct 1999-Oct 2006: **Senior Computer Scientist**, Computer Sciences Corporation (CSC)

- Oct 1999->Jun 2001: London Office ("Senior Unix Administrator")
- Jul 2001->Oct 2006: New York Office ("Senior Computer Scientist")

CSC is a large multinational resourcing department with over 65,000 employees worldwide. Customers include various countries defence departments, large banks, NASA etc. I was employed on the JPMorgan contract, initially based in London and then transferring to the New York office. When JPMorganChase in-sourced the CSC employees to become JPMC employees I was brought onboard as a Vice President. Essentially I had worked for JPMorgan since 1999, just with a different employer. Accordingly, the work performed in this role has been described above.

June 1995-Oct 1999: **Senior Infrastructure Administrator**, VNU Business Publications Ltd, in the following departments:

- Systems Department: Senior Infrastructure Administrator (Unix, Oracle, NT)
- VNU Online Europe: Unix & Network Administrator, Technology evaluator
- MatriX Publishing Network: Unix & Network Administrator, Developer

VNU BPL is the London division of a Dutch owned billion dollar publishing company with titles such as Computing, Management Consulting, Financial Director and Personal Computer World. I was initially based in MatriX Publishing Network (MPN), specialising in content delivery on the internet using Sun servers via a 2Mbit leased line onto BTnet's SMDS backbone. Moving to this company both helped advance my skill base, by providing access to new systems, and moved me into an area of computing I have special interests in (see *Personal Interests: Internet* later in this document).

MPN was co-opted into VNU Online Europe to help kick-start a similar department in Holland. Later MPN's London functions were merged into a larger NewMedia department. This resulted into my moving into the central Systems department, providing support for existing servers as well as internal corporate systems. As personnel changed I was later given responsibility for the Oracle DBA role and then NT administration.

Unix systems used include Sun Solaris systems (Sparc 4/5, Ultra 1/2, E3000, E3500, E450), Linux (RedHat), HP-UX (HP9000/700, HP9000/800 K&D classes).

Responsibilities include all Unix servers, Cisco routers, DEC FDDI switches, 3Com switches, Firewall configuration. Acted as a programmer on various projects. Applied Unix scripting skills to NT platform to automate various administrative functions.

Major tasks completed

- Restructuring and rationalising of network for stability and load balancing.
- Server installation and tuning, kernel and package patching
- Reconfigured sendmail for dialup SMTP sending and firewall rules
- Designed and implemented backup strategy, including 24x7 hot-backups
- Implemented INN based Usenet NNTP server, co-ordinating with BTnet
- Wrote first Java applet sold commercially in the UK
- Designed networks for customer offices
- Internal Intranet site combining file system, pager, fax services
- Design and implementation of European wide ISDN network based on RFC1918
- Planned and implemented office moves keeping server downtime to a minimum
- Beta tested various Internet tools (eg Muscat Web Searcher)
- Built generic interface layer between CGI and backend databases
- administration and automation scripts (eg DNS, POP, tacacs, monitoring)
- Costed and implemented network upgrade to DEC Gigaswitch/FDDI core
- Oracle DBA skills
- Design and implementation of asynchronous database logshipping to standby databases
- NT user creation automation via ksh scripts combining permission/quota settings

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July 1990-June 1995: **Computer and Communications Manager**, Hellepont Group based in Papachristidis Ltd
Hellepont consisted of five offices worldwide (London, Aberdeen, Greece, Philippines, Canada) as well as various companies owning different ships. Papachristidis Ltd provided most of the administration and technical support for the group based in London. This was my first full time job after leaving University.

Systems used include 6 Suns (Sparc 1+/2/IPC) running SunOS 4, 3 Altos (2000/3068/3068EP), 3 Convergents (S80/S120), 28 Linux (home built, including shipboard). Access via VT and Wyse terminals using terminal servers, or by X consoles making over 130 connections (London, Athens, Manilla, Aberdeen, shipboard)

Responsibilities included group computing and communications, with an assistant based in the Greek office, and in the past an assistant in the London office. Based in London but traveled frequently to Greece and once to the Philippines. Specify and cost projects for presentation to the directors for approval. Became the point of contact for most equipment (fax, telephones, Plessy ISDX, photocopiers etc).

Major tasks completed

- Upgraded Greek office computer from Convergent S80 to Sparc 1+ network
- Wired buildings in Greece and London for ethernet and serial links
- Connected Telex interface boxes to network, managed applications
- Upgraded Ultrix systems from 3.1 to 4.0, then later migrated to SunOS 4 on Sparc IPC
- Replaced DecServer 200 DECNET thick-network with Vista-VCP IP thin-network in London
- Implemented M1020 leased line between London and Greece handling voice+data
- Integrated email, telex, fax, UUCP, modems and leased lines into a single frontend
- Wrote system handler for AT&T Global messaging
- Ported application to Manilla office and to Miami based consultants systems
- Developed invoice generation system in shell script.
- Developed simple banking application in Informix/SQL and shell script
- Developed shipboard "Masters General Accounts" package using TurboPascal
- Integrated shipboard accounts with office Unify/2000 system via email/telex
- Converted company logos to postscript for integration with internal WP systems
- Devised and planned shipboard computer installation.
- Built Linux distribution for installing on ships
- Tested various modem links between ship/shore aiming for reliability and speed
- Integrated Marinet communications system into combined communications package
- Built network in Aberdeen for new startup department
- Upgraded Philippines network, installing second server and printers
- Automated administration of Philippines network
- Developed payment system to link with Midland, then Chase banking systems

Jun-Aug 1988-89:

Vacation work for the Ministry of Defence analysing and programming models.

TRAINING COURSES TAKEN

- Mar 2008: Software Architecture Principles & Practices (Carnegie Mellon SEI)
- Oct 2006: Solaris 10 Features for Experienced Solaris SAs (SA-225-S10)
- Mar 2004: Solaris 9 Advanced System Administration (SA-299)
- Jul 1998: Supporting Microsoft NT Server: Core Technologies (Azlan training)
- Feb 1998: Oracle 7 Backup and Recovery (O7DBA/BR7, Oracle Training London)
- Feb 1998: Oracle 7 DBA (O7DBA/AD7, Oracle Training Richmond)
- Jun 1996: Oracle 7 PL/SQL (SPL7, Oracle Training Bracknell)
- Jul 1995: Sun Solaris Administration (by Sun for Competency 1000 accreditation)

EDUCATION

1987-1990

St Peter's College
Oxford University
New Inn Hall Street
OXFORD, OX1 2DL.
BA(Hons) Maths/Computation

1985-1987

South East Essex V1th Form College
Runnymede Chase
Thundersley
Essex.
4 A levels

1980 - 1985

The King John School
Shipwrights Drive
Thundersley
Essex.
10 O levels

QUALIFICATIONS

Bachelors degree: Jun 1990: BA Hons(Oxon) in the Joint Honour School of Mathematics and Computation

A Levels: Jun 1987: A: Mathematics, Further Mathematics, Physics
C: Chemistry

O Levels: Jun 1985: A: Additional Mathematics, Chemistry, Computer Studies, French, Physics
B: Geography, Sociology
C: English Language, English Literature

Nov 1984: A: Mathematics

Other Awards: Oct 1988: Awarded Domus Scholarship in Mathematics and Computation (renewed 1989)
Jun 1988: Second Class in Honours Moderations in Mathematics and Computation
1987: Awarded sponsorship by Ministry of Defence (three years)

POSITIONS OF RESPONSIBILITY

1988-1990: Treasurer of Oxford University Microcomputer Society (re-elected in 1989)
1988-1989: Secretary of Oxford University Artificial Intelligence Society
1987-1989: Head of college computer room (appointed by Governing Body)
1984-1985: Advisor to school Computer Society. School Prefect

PERSONAL INTERESTS

Computing: I have been an avid computer user since 1981, when I taught myself to use a variety of machines and languages. I own a large number of machines (Windows, Linux, Solaris, FreeBSD) although not all machines are currently setup, and spend time writing my own small programs to manage aspects of my life (eg finances, book and video catalogs). My OS of choice on the PC's is Linux. I apply security aspects even to my home network, with virtual machines acting as "bastion hosts" for incoming connections.

Internet: In England I ran a bulletin board service called *Spuddy* from 1994 until I left in 2001, which provided the UK with free access to Usenet news and email. This was a SunOS 4 based system on a Sparc 2 with 4 dialin lines and UUCP connectivity. At its peak there were over 400 regulars and had been mentioned in both the national and computer press.

Reading: I am an avid reader of Science Fiction and Fantasy books, with a personal library of over 1100 books ranging from "classic" work such as Asimov's "Foundation" series, modern "hard" writers such as Vernor Vinge and the late Charles Sheffield, to light hearted fantasy such as Douglas Adams and Terry Pratchett.