

Curriculum Vitae for Mike Antrobus

Personal Details:

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Tertiary Education: BSc (Mathematics)
Security Clearance: SECRET (Commonwealth of Australia) - lapsed

Professional Profile:

I graduated from Salford University in Manchester, England, in 1969 with a bachelor's degree in mathematics and a specialty in Numerical Analysis, a prerequisite to a career in the new industry of computers. The university course involved internships at The Nuclear Power Group (TNPG) and Elliot Automation, (which morphed into English Electric and ICL in short measure, as the computer industry took form).

My first job after graduation was with SCICON Computer Bureau in London, which used the brand-new Univac 1108 computers. SCICON happened to be where British Telecom (BT) did some of their packet switching testing in the early 1970's, as a precursor to the Internet.

In 1974, I started contracting work, providing software support and problem resolution on various Univac sites in Spain and Belgium.

After emigrating to New Zealand and working on a major NZ government system in Wanganui, I subsequently provided systems and communication network support for Univac NZ. Hopping across the Tasman Sea to Canberra, Australia in 1981, I worked on the installation and support of the Australian Customs Services (ACS) for Univac, Australia and later, working for Univac Australia & Southeast Asia, where he engaged in traveling to various Univac sites in Australia, Hong Kong, and China to troubleshoot system problems.

I went on to upgrade and support the air-traffic-control system running on Univac computers for the Frankfurt airport, Germany, which involved Y2K compliance testing in one of the critical areas of Y2K concern.

Returning to Australia in 2000, I continued to contract to Univac and various government departments in Canberra, broadening my roles to computer network support and performance analysis. At the Department of Defence, I was responsible for the monitoring the computer network of over 100,000 terminals, (the biggest computer network in Australia), for performance bottlenecks and external intrusion detection from foreign actors on the Internet. During this time, I participated in the compliance testing and the overseeing of the migration of DoD's computer transaction network to a web-based system.

I have kept my interest in the computer industry by research on authoring various books, including his latest book, "The Internet and the Unregulated Space of the Scammers and Hackers", with the focus on the home computer user and cyber security issues.

I have volunteered his time, working through ComputerPals tutoring over55's with their Apple and Microsoft computers and all varieties of mobile phones.

I run my own web-site at www.villagecomputing.com.au

My responsibilities have included interfacing with upper management presenting reports on strategies for resolution of critic problems and planning for new projects.

The main areas of my expertise are:

- Application Performance Analysis – pin-point source of problems, identify areas for improvements.
- Network Performance Analysis – bandwidth and protocol analysis in major communication networks.
- Continuous Network Statics gathering of server performance data and graphical presentation of results by timeline.
- Cyber Security Monitoring of major government network for Intrusion Detection and Suspicious Network Activity.
- Understanding of Cyber Security frameworks (NIST/ ISO 27001:2013 and ASD essential 8)
- Application Integration – web based multi-tier server architecture, VMWare and Citrix environments.
- 2nd and 3rd level Help Desk problem resolution, interfacing with upper management on strategies for resolving day-to-day network issues.
- Web Programming – HTML5, JavaScript, Perl, Python
- Fluent in Java, COBOL programming languages.

- Project Management of a team of technical specialists.
- OS internal Assembler coding for Linux and Unisys systems
- Fly and Fix Problem Resolution for Unisys in SE Asia division
- In depth knowledge of Security Issues for Home and Business Computer Networks. Author of several books and articles on Cyber Security and the Home Computer Network

Industries:

- Government
- IT Suppliers
- Airlines
- Private Industry
- Home Computer Systems

Experience and Skills:

- Application and Network Triage/Analysis down to line of code
- Network Monitoring and Topology, problem analysis down to server
- Cyber Security Monitoring, Firewall strategies
- Project Management – application integration
- Application Coding in C, C++, Java (J2EE),
- Server end coding in PERL, HTML 5, Perl, JavaScript, Python

Experience Highlights:

- Working with Compuware Australia, demonstrating and using Vantage suite at various Government sites such as ATO, DFAT and Defence re focus on Cyber Security and Network Performance.
- Contracted to the Defence Computing Bureau (DCB) as a communications consultant providing network and application support for integration and problem resolution for the core business web-based applications used by Defence. End to End tracing and protocol analysis of Defence's network of over 100,000 users as part of 2nd and 3rd level help desk support.
- Involved in analysing the results of load testing (APLT) of the core business logistic application from the perspective of the overall impact to the Defence network. Also identifying some performance

improvements, such as reducing the network footprint of the application.

- Diagnosing application performance issues with core business web-based applications in a multi-tier server architecture. Analyse traces down to the network and application protocols down to the server and ASP or Java thread involved.
- Involved in translating network performance reports, produced by the Performance Management Group in Defence, to events in the core business application life histories.
- Fluent in C based languages and understanding of many network and application protocols, especially applicable to analysing network and application traces.
- Developing and maintaining web-based network performance monitoring tools using MTRG and PERL server-based scripting.
- Maintaining my own home computer network and web site.
- Volunteer work at ComputerPals with one-on-one coaching of over 55's in computer skills.

Chronology of Experience:

• 2010 – present

Author: 'The Landscape of the Internet'

This book is focused on the home computer user and how to manage the increasingly serious area of cyber security and the inherent perils of surfing the Internet. The book is written in an 'easy to understand' perspective without the need of any depth of technical knowledge as a prerequisite. The intention is to give the home computer user a comprehensive guide to navigate the Internet safely with a list of actions to improve network safety. As many of us work in an office environment or are working from home (WFH), the book compares the differences in the cyber security capabilities between the home and the office environment.

• **May 2018 – Aug 2019**

COMPUTERPALS

I have done some volunteer work with ComputerPals in North Narrabeen and Newcastle, coaching over 55's one-on-one with computer skills in Windows and Apple environment with an emphasis on surfing the Internet safely. It has been a two-way learning path as I have enjoyed passing on my knowledge while understanding where people are coming from.

• **May 2011 – Sep 2011**

COMPUWARE - VANTAGE SOLUTIONS

I was employed by Compuware Australia, to provide support to their Vantage product line to various Government sites including the Australian Tax Office (ATO), Department of Foreign Affairs and Trade (DFAT) and Defence (DOD). This involved giving demos and interpreting captured traces to the network and application protocols for the customer. Compuware products provide a window on network activity with the ability to trace a data stream through a communication link. This has been a major benefit in tracking down Cyber Security issues.

• **Oct 2000 – Jan 2011**

UNDER CONTRACT TO DEPARTMENT OF DEFENCE, AUSTRALIA

I was contracted to the Defence Computing Bureau (DCB), which is part of the Chief Information Office Group (CIOG) of the Department of Defence, Canberra, Australia.

DCB provided the host end for most of their applications, such as the inventory and pay applications, used by the Defence personnel over a network of over 100,000 users, running on a multitude of application servers, load balancers and backend database servers and mainframes.

Initially I was contracted to provide communications support for the Unisys mainframe, which supported the ADFPAY system for the uniform services.

As my contract was extended over the years, my duties broadened as part of the DCB Communications Group to supporting the core network of around 100 Cisco, Nortel (Avaya) switches and Alton (Radware) load balancers to host applications running on IBM, Linux and Windows servers and mainframes.

I installed and developed the MRTG network monitoring tool to provide a window on network bandwidth capacity and help track network problems down to their source. I extended the MRTG package to provide various web-based utilities such as online inventory reporting and 'find my server' applications using SNMP and written in PERL, PHP, and Dreamweaver.

Continuing the philosophy of providing a window on the operation of the network, I was involved in projects to evaluate Compuware products such as Compuware NetworkVantage and ApplicationVantage for DCB. I was solely responsible for installing and running the ApplicationVantage product at DCB. I also interfaced with other CIOG performance groups as the host end for NetworkVantage reporting. Both these products give an enhanced perspective of the Defence network from the user's terminal to the host mainframe.

This has greatly improved our ability to analyse network problems, monitor application rollouts and isolate performance bottlenecks and provide some Intrusion Detection capability for Cyber Security incidents.

I became fluent in deciphering many of the network protocols such as TCP/IP, HTML, RPC, DB2 DRDA, Oracle, SSL, and SNMP to name a few. As a result, we are able to provide more meaningful input to the various applications support groups with the ability to follow individual user network threads if required.

Using ApplicationVantage, I was able to put the microscope on most of the core business applications for Defence, including PMKeyS, ADFPAY, MILIS, and the Defence Intranet gateway. Working with management and application support groups, I was able to help provide strategies to improve user response times in a cost-effective way and with minimal impact. As an example, I was able to pinpoint a particular ASP in the PMKeyS application that was causing excessive delays and the number of concurrent users increased especially prevalent at the tax EOFY time.

• **January 1998 - Sep 2000**

UNDER CONTRACT TO UNISYS AUSTRALIA

Trading as Village Computing, I provided computer consultancy services to Unisys Australia. I was primarily working on site at the Customs Australia offices supporting the main transaction systems. My specific responsibilities were communications and application support. I assisted in

the migration of their nationwide network of Customs Brokers from an OSI-MHS X400 environment to a TCP/IP client/server architecture. While I was at Customs, we move the production system from Canberra to a Sydney with a backup system at Canberra for disaster recovery. My contribution was to evaluate the communications approach, migrate the production network to the new site and assist Customs/EDS in band width performance analysis of the Optus ATM link between Canberra and Sydney. From my broad knowledge of not just Unisys software, I was able to assist and liaise with various levels of Customs/EDS and Unisys management in achieving a successful transition of the production main frame in good time prior for the Olympics deadline and without loss of service to Australian Customs clients.

Before this, I was involved in working with the customer on their Y2K and GST implementation for Customs Australia.

In consultation with EDS personnel, I have also been involved with evaluating Web Enabling methodologies such as BEA Tuxedo to interface with Customs network of import/export agents. Also undertook comparative studies on CA's Cool-gen software.

• **March 1997 - December 1998**

UNDER CONTRACT TO DEUTSCHE FLUGZEUG SICHERUNG (DFS) IN GERMANY

DFS is the semi-private government department responsible for Air Traffic Control over German air space similar to the function of the Civil Aviation Services Authority in Australia. This is the same project I worked on between April 1990 and November 1993 when DFS was BFS. This time I was contracted to the customer instead of Unisys Germany. The main applications for DFS provide scheduling and management of all flight strip generation and NOTAM messaging for air traffic control towers covering German air space.

My main responsibilities were to run transaction regression scripts against new release levels of these applications before they are installed into production. This involved an overall understanding of the DFS application from radar site to air traffic controller. While I was there, I rewrote the Regression Tool suite of programs to run regression and provide comparison reports of new regression runs against previous baseline reports. I optimized the turnaround time from 2 days to 4 hours. I was also

application owner for other support applications such as STARTUP/RECOVERY which I developed on the previous visit to Germany. The Regression Tool figured prominently in DFS activities for Y2K certification following industry recognised Y2K methodologies. Air Traffic Control is near the top of the list in the public perception of Y2K problem areas at the time and DFS has given high priority and applied strict criteria to achieve Y2K certification.

• **December 1993 - February 1997**

VILLAGE COMPUTING CONTRACTED TO UNISYS AUSTRALIA

Trading as Village Computer, I was contracted to several divisions of Unisys such as Unisys Asia Pacific Theatre Customer Support Centre (APTCS) which involved onsite support 2 days a week as a Computer Consultant at Australian Customs. This included 'fly and fix' support as needed for other Unisys sites in Australia and overseas in the Asia Pacific region. I also had a contract with Unisys Information Services (UIS) for 2 days a week for EXEC and Communications software support at the Defence Computer Bureau at the Department of Defence.

• **April 1990 - November 1993**

UNISYS GERMANY - SYSTEMS CONSULTANT UNDER CONTRACT TO UNISYS

I was involved in a major hardware and software upgrade for BFS, the German Air Traffic Control system in Frankfurt Airport. The BFS system is responsible for control of all civil flights over German airspace and provides support systems for air traffic controllers, such as flight path scheduling, generation of flight strips for aircraft landings and flight destination and arrivals information on a 24-hour basis.

The project involved migration of existing applications from Unisys 1100/80 series computers and pre-System Base levels of system software to Unisys 2200/600 series and latest SB releases. This involved eliminating large amounts of local code, especially in communication software component of the OS and rewriting their main applications in NPE UCOB as HVTIP transactions.

I was responsible for providing automatic start-up/recovery procedures for any type of system outage, and application maintenance support programs for installing, updating and de-installing BFS transaction

applications from a single application tape. Each application could be run in various modes, such as production, school mode, regression, and testing mode. The recovery criteria were to re-reinstate production mode application transactions within 30 minutes including a system reboot time.

• **July 1989 - February 1990**

**BMW BANK, MUNICH WEST GERMANY - SYSTEMS CONSULTANT
UNDER CONTRACT TO BMW**

BMW Bank was the Leasing arm of BMW in Munich where I was sole onsite support for the Unisys Operating System and Transaction System for BMW's suite of leasing applications.

• **October 1987 - June 1989**

UNISYS AUSTRALIA - COMMUNICATIONS CONSULTANT

Involvement with several major RFT's for DOD and ATO, running benchmarks and demonstrating the latest UNISYS communications products at the time, such as OSI compliant communications software.

Fielding questions on SNA connectivity and provide demonstrations of OSI capabilities using X25 networks through IS-PC products, DCP TELCON and 2200 host connections.

• **September 1981 - October 1987**

UNIVAC AUSTRALIA - CUSTOMER SUPPORT MANAGER - CONSULTANT

Involvement from the start of the Australian Customs Service (ACS) project from installation to production implementation, initially on 1100/84 and later migrating to 1100/93 series.

I was project manager for a team of 12 systems analyst involved in installing standard software products on the 1100 series systems for ACS. I was involved in day-to-day project management and problem resolution on 24-hour nationwide system - implementing liaison meeting with ACS personnel.

Management of several system upgrades at various stages of the ACS project, resolution of technical issues and meeting customer deadlines - Special Software

Project Manager responsible for the development and implementation of

OSI-X25 code in DCP TELCON communication frontends interfacing to PRIME minis which made up a nation-wide OSI- 25 Public Data Network for ACS. I also provide SNA connectivity through TELCON SNA/NET to an IBM mainframe at ACS.

• **February 1976 - September 1981**

NEW ZEALAND GOVERNMENT / SPERRY NEW ZEALAND - CHIEF SYSTEMS PROGRAMMER - PROJECT LEADER

I worked at the Wanganui Computer Centre, which provided a 24-hour nationwide communications network for the Police and Justice Departments of the New Zealand government.

I was responsible for a team of programmers supporting OS1100, database and Communications software. I was involved in the initial installation and implementation of hardware and software systems at Wanganui.

Joined UNIVAC New Zealand, while still based at the Wanganui Computer Centre and involved in several hardware and software upgrades such as the migration to the 1100/82 series and replacement of Cusp's by DCP/40's.

• **August 1974 - February 1976**

HOWARD ORGANISATION, UK - OS1100 SUPPORT CONSULTANT

On contract to UNIVAC, Spain as OS1100 software support, problem resolution and performance analysis at various sites around Madrid

On contract to UNIVAC, Belgium as OS1100 software support, involved with installation of several 1100/60 series systems around Belgium.

• **June 1969 - August 1974**

SCICON COMPUTER BUREAU, UK - SYSTEM ANALYST

I was responsible for supporting OS1100 for SCICON's two UNIVAC 1108's and involved some of the early OSI packet switching experiments run by the British Post Office using SCICON's computer..

I implemented accounting package for billing SCICON bureaux users and involved in installing the accounting package on a UNIVAC 1106 in Singapore for the Development Bank of Singapore (DBS).