

Network Devices and Systems

Supported by Tim Malone

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Comprising Recent Experience

Twelve years at Avjet Corporation

And

Prior Experience (1995 to 2005)

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Network Devices

I have been working with 802.3 networks since the early days of microcomputers. I started with Novell Netware on ARCNet, later on Token Ring then on TCP/IP Ethernet. After switching to Microsoft NT as the OS, I installed and supported 10Base5 on Coax Thicknet, 10Base2 on Thinnnet, then 10BaseT on twisted pair. With improvements in network speeds I migrated to 100BaseT and finally Gigabit Ethernet with 10gbs fiber ports for SAN and multiple VM hosts.

Network devices I installed, configured, managed and supported at Avjet (2005-2017):

- Fortinet Fortigate 100D Next Generation UTM firewall Network Security Appliance
- Juniper SRX240H2 Secure Services Gateway NextGen UTM Firewall (replaced)
- Pulse Secure (was Juniper) Gateway MAG2600 SSL VPN Security Appliance
- Multiple Juniper GbE switches, 48 and 24-port, EX-4300, EX-3300 & EX-2200
- Multi-location Juniper Netscreen 5GT and SSG5 Firewall Security Appliances
- A half dozen Wireless Access Points, Linksys / Cisco and later Asus brands
- Multi-location Cisco PIX 506e Firewall Security Appliances, later replaced
- Multiple Cisco Catalyst 2960G, 3560G, 24 port and 48 port GigE switches.
- Multiple Cisco Catalyst 2950 and 2960, 24 port and 48 port 10/100 switches
- Multi-location DSL and T1 modems connecting AT&T and backup ISP links
- Multiple HP and 3Com 10/100 managed switches – retired in GbE upgrade
- Numerous 10/100 and GbE workgroup switches, later replaced with home runs
- Multiple APC UPS units for each server room, providing two hours battery time
- About forty Enterprise & workgroup printers – HP Color LaserJet and OfficeJet

Network devices installed, configured, and managed at previous employers (1995-2005):

- Watchguard Firebox III 7.0B2 with VPNs to plants in Mexico and San Diego
- Multiple 3Com 10/100 and Netgear 100/1Gb managed backbone core switches
- Linksys, 3Com and Netgear unmanaged workgroup hubs and switches
- CheckPoint Firewall-1 on NT Server 4.0 with VPN-1 Secure Remote Service
- Cisco 1600 router IOS 11.1, Cisco 2501 Router, FastComm routers

I used these devices to provide secure and responsive network connectivity to support the computing and communication needs of the company including cyber-protection, routing, switching, email, storage, remote access and wireless functions. The devices by themselves are useless without the intelligence and configuration experience of a skilled network administrator and IT support specialist. I provided that experience and expertise as part of my regular duties.

I am an experienced network troubleshooter. I am an MCSE with CCNA and VMWare training. My responsibilities have always included being the individual responsible for providing 99.99% uptime on LAN, servers, the SAN, routers, switches, firewalls, Internet links, VoIP, workstations and the WAN. I provided level three support for each of the devices on our network, fine-tuning or replacing each of them to support company growth over the years.

Systems Supported

I have over twenty years of experience supporting Microsoft, Novell and Linux Servers since 1995 (MCSE since 2000). My specialty has been supporting SMB Small to Medium Business market with typically less than 200 workstations. In my role as an IT or IS Manager, I have managed the servers, the WAN, the LAN, the workstations, Active Directory, Email, and all application servers including accounting systems (some ERP / MRP) and Office applications.

Server Operating Systems, Hardware and Applications I supported at Avjet (2005-2017):

- Microsoft Server 2012 & 2012 R2, 2008 & 2008 R2, 2003 & 2003 R2, 2000
- VMWare ESXi 5.5 Enterprise + Storage VMotion Clustering / High Availability
- HP Proliant DL360 G5 & DL380 G7 servers (Six VMWare hosts), 64GB memory
- HP Lefthand P4500 10TB iSCSI SAN, Mirrored on 10 Gb fiber, two data centers
- Datto Sirius 10TB D2D backup device with hourly backups and offsite replication
- Microsoft Exchange Server admin, updated regularly - 2013, 2010, 2007, 2003
- Microsoft Office 365 including OWA, 2016, 2013, 2010, 2007, 2003, XP, 2000
- Microsoft Windows desktop products: 10, 8, 7, Vista, XP and all earlier versions
- Sage MAS500 ERP Accounting, Abra Payroll, MS SQL Server 2012, 2008, 2005
- Adobe Acrobat, Adobe CS3, Symantec Backup Exec 11, 12, 2010, 2012, 2014

Server Operating Systems, Hardware and Applications supported previously (1995-2005):

- Microsoft Server 2003, 2000, NT Server 3.5, 4.0, NT 4.0 Terminal Server edition
- Novell Netware 3.1, 3.11, 4.0, 4.1, Citrix WinFrame, Metaframe 1.8 with ICA
- Three Red Hat Enterprise Linux AS 2.1 servers, scripting in PERL, Java 1.3.1
- SCO Open Server Rel V Unix running early version of proprietary MRP System
- Numerous early HP Compaq servers - Proliant ML370 G3, ML350, 1850R
- Alpha Micro AM6000, AM7000, AMOS, dBASIC, Metropolis, AlphaMRP
- Progress 9.1D SP8 with SQL-92, Webspeed, Tomcat, QAD Mfg/Pro EB2 SP4
- Macola 6.2 and Macola Progression 7.5 MRP, Genesys MRP from Point4 Data
- Microsoft Windows XP, 98, 95, 3.1, MS Office XP, 2003, 2000, 97, 95, 4.0, 3.0
- Data Direct Tech ODBC 4.2, Lotus Domino Notes R6.01, Crystal Reports 8.5
- Veritas Backup Exec 8, 9, 10, 11, Quantum Super DLT 320GB Tape Backup Unit
- MS SQL Server 2000, Computer Associates eTrust Anti-Virus, Office XP & 2000
- MS Project 2002, MS Visio 2002, MS Access 97, 2000 & XP, Tiny Term, Hyena
- Pervasive PSQL and Btrieve embedded database, Norton AV, SurfControl filter
- Cheyenne ArcServe, PC Anywhere, VNC, HP Jetadmin, MS Office 97, dBASE III+

I used these systems to provide computing, storage, backup and email services to the company. In addition I supported enterprise accounting and numerous applications specific to the flight operations market such as aircraft maintenance, scheduling, flight planning, charter operations and flight awareness or aircraft situation and tracking. Most recently I deployed Windows in a remote computing VDI Virtual Desktop Environment using VMWare and MS Remote Desktop.

Security Systems and Devices

In my role as IT and IS Manager, I have ensured my employers and co-workers were protected from malware and cyber-attacks using firewalls, secure gateways, enterprise anti-virus and anti-spam software, web filters and business continuity systems including offsite disaster recovery solutions. I have many years of hands-on experience removing ransomware, viruses, malware, adware, Trojans and key loggers from workstations, laptops and servers.

Security systems I installed, managed and supported while employed at Avjet (2005-2017):

- McAfee EPO ePolicy Orchestrator Unified Security Management Endpoint Protection
- Barracuda Spam Firewall 300Vx AS / AV virtual appliance with cloud protection layer
- Commtouch (Cyren) Cloud-based Anti-Spam, Anti-Malware, Anti-Phishing protection
- Symantec Endpoint Protection centrally managed Antivirus for servers and workstations
- Forcepoint Enterprise URL Filtering (formerly Websense Web Filter & Security)
- Microsoft Exchange Online Protection (Forefront Online Protection for Exchange)
- Pulse Secure (was Juniper) Gateway MAG2600 SSL VPN Security Appliance
- Datto Sirius Enterprise 10000 10TB D2D backup device with offsite replication

Active Directory Experience

In my role as an IT / IS Manager with full system administrator responsibilities and permissions, I have been working with Active Directory for about fifteen years. I designed the structure and layout of the Organizational Units, Security and Distribution groups and Group Policy Objects. Including off-site flight crews, there were more than 350 active users. Active Directory is tightly integrated with Exchange Server in the Avjet Environment, which I also administered daily.

My duties included managing the domain and the domain controllers through AD Domains and Trusts, managing our various locations on the WAN through AD Sites and Services, and adding, changing or deleting user accounts through AD Users and Computers. I also ensured the critical functionality of DNS, DHCP and LDAP, creating and updating Group Policy, as well as Rights Management and file server permissions, all allowing us to remove redundancy and reduce error.

Thin Client and VDI

I first implemented thin-client services in 1999 while replacing an old Novell Netware 3.11 system with NT 4.0 and two load-balanced Citrix servers for a manufacturing company. At another manufacturing company I supported Microsoft Remote Desktop on Server 2000. In my most recent role as the IT Manager / IT Director for Avjet Corporation at the Burbank airport, I implemented Remote Desktop Services running on Server 2008 under VMWare ESXi 5.5.

In addition to RDS, a server-based solution, and because our Flight Operations Software (FOS) required a LAN-based solution, I created virtual Windows 7 workstations for our remote users. Using a Remote Desktop client, they accessed their dedicated virtual workstation from their PC or Mac, laptop or tablet, giving them the freedom and ability to respond to demanding clients any hour of the day or night, including the ability to print to local or remote printers as needed.

Specifically, I initially used WinFrame and Metaframe in my installations of Citrix products 1999 to 2001 at Carson Industries. The major issue in those early days was finding or creating printer drivers compatible with Citrix ICA. Since Citrix ICA was incorporated into Windows Terminal Server, my VDI of choice moved to Terminal Services as it was less expensive. The Microsoft product and RDP improved over the years so I used that exclusively from 2001 on.

My specific tasks were to design, configure and implement Remote Desktop Services for my employers and co-workers. I provided all training, troubleshooting and support, including all after-hours and weekend support for travelling and remote employees who needed to access their files and our Flight Operations System while on the road or working offsite. I also purchased, installed and maintained our secure VPN solution to ensure protected Remote Desktop access.

Training and Certifications

Professional Certifications:

MCP - Microsoft Certified Professional, 5-23-2000, MCP ID#1934419

MCSE - Microsoft Certified Systems Engineer, 2-8-2001, Same MCP ID#

CompTIA Certified A+ Exam and Certification, 7-6-2000

CompTIA Certified Network+ Exam and Certification 7-6-2000

College Degree:

Associate Degree from Mt. San Antonio College, Walnut CA, 13 June 1980

Technical Training Completed by Tim Malone

<u>Institution</u>	<u>Date</u>	<u>Summary</u>
New Horizons	11-9-2012	VMWare vSphere v5.0: Fast Track, 40 hours
New Horizons	8-9-2013	CompTIA A+ 2012 Certification Part 1, 40 hours
New Horizons	8-23-2013	CompTIA A+ 2012 Certification Part 2, 40 hours
New Horizons	6-28-2013	CompTIA Network + Certification, 40 hours
New Horizons	7-12-2013	CompTIA Security+ 2011 Certification, 40 hours
New Horizons	7-26-2013	CompTIA Storage + Certification, 40 hours
New Horizons	6-14-2013	CompTIA Server + Certification, 40 hours
New Horizons	11-15-13	CompTIA Linux + Certification, 40 hours
New Horizons	10-11-13	EC-Council Certified Ethical Hacker, 40 hours
New Horizons	11-8-2013	6241 Server 2008 Infrastructure, 40 hours
New Horizons	10-25-13	6433 Implementing Windows Server 2008, 40 hours
New Horizons	11-13-13	6420 Fundamentals of Windows Server 2008, 40 hours
New Horizons	1-18-2013	50331D Windows 7, Enterprise Desktop Support, 40 hours
New Horizons	3-1-2013	6419B Configuring Windows Server 2008, 40 hours
New Horizons	3-13-2013	6293A Supporting Windows 7 in the Enterprise, 40 hours
New Horizons	4-19-2013	10135B Managing Exchange Server 2010 SP2, 40 hours
New Horizons	5-3-2013	6425C Configuring Server 2008 Active Directory, 40 hours
New Horizons	5-15-2013	6292 Installing & Configuring Windows 7 Client, 40 hours
New Horizons	5-30-2013	6426C Config Identity & Access Server 2008 AD, 40 hours
Moorpark College	Fall 2006	CNSE M42 - Microsoft Windows Active Directory
Moorpark College	Spr. 2006	CNSE M43A - Windows Network Infrastructure Admin
Moorpark College	Spr. 2006	CNSE M44 - Designing W2K Dir Services Infrastructure
Moorpark College	Spr. 2006	CNSE M18 - Cisco Sys Computer Networking 1 & 2
Moorpark College	Fall 2005	CNSE M30 - Microsoft Windows XP Pro Administration
Moorpark College	Fall 2005	CNSE M31 - Microsoft Windows Network Server 2003
Moorpark College	Spr. 2005	CNSE M01 - Intro to Networks & Telecommunications
Moorpark College	Spr. 2005	CNSE M05 - Local and Wide Area Networks
Moorpark College	Spr. 2005	CNSE M13 - Internetworking and TCP/IP
Moorpark College	Fall 2003	CNSE M35 - SQL Server – Install & Configure – 40 hours
Moorpark College	Sum 2003	CNSE M71 - Windows Professional and Server for Techs
Moorpark College	Sum 2003	CIS M20 - Microsoft Word Part 1
Moorpark College	Spr. 2003	CNSE M17 - Cisco Sys Computer Networking 4

Moorpark College	Spr. 2003	CNSE M16 - Cisco Sys Computer Networking 3
Moorpark College	Fall 2002	CNSE M15 - Cisco Sys Computer Networking 2
Moorpark College	Fall 2002	CNSE M11 - Cisco Sys Computer Networking 1
MCSE Exam	12-6-2005	070-270: Installing, Config and Admin Win XP Pro
MCSE Exam	12-1-2005	070-290: Manage & Maintain Win Server 2003 Environ.
MCSE Exam	11-21-00	070-068: Implement & Support Server 4.0 in the Enterprise
MCSE Exam	2-8-2001	070-081: Implementing & Supporting Exchange Server 5.5
MCSE Exam	12-15-00	070-059: Internetwork with MS TCP/IP Windows NT 4.0
MCSE Exam	10-17-00	070-067: Implement & Support MS Win NT Server 4.0
MCSE Exam	8-24-2000	070-073: Implem. & Support MS Win NT Workstation 4.0
MCSE Exam	5-23-2000	070-098: Implementing & Supporting MS Win 98
MCSE Exam	6-15-2000	070-058: Networking Essentials
Microage	2-4-2000	803 - Administering MS Windows NT 4.0
Microage	2-25-2000	922 - Supporting MS Windows NT 4.0 Core Technologies
Microage	3-21-2000	688 - Internetworking MS TCP/IP on MS Windows NT 4.0
Microage	4-7-2000	689 - Supporting MS Windows NT 4.0 Ent. Technologies
Microage	4-28-2000	1026 - MS Exchange Server 5.5 Concepts & Administration
Matrix Consulting	3-12-2004	Intro to Progress Programming for QAD Mfg/Pro, 20 hours
Executrain	1-8-2001	Advanced HTML Programming, 8 hours
Executrain	12-11-00	HTML Fundamentals, 8 hours
Comp. Solutions	10-1-2000	Macola System Administrator
New Horizons	Aug 2000	Intermediate Crystal Reports, 8 hours
New Horizons	Aug 2000	Introduction to Crystal Reports, 8 hours
Productivity Point	Apr 2000	CTX-302 MetaFrame Administration, 24 hours
New Horizons	2-28-1997	Novell Netware 605 TCP/IP Transport, 16 hours
New Horizons	7-12-1996	Advanced Windows, 8 hours
Open Learning Ctr	6-25-1996	SCO TCP/IP & SCO NFS Administration, 8 hours
Open Learning Ctr	4-5-1996	SCO OpenServer Administration I
Phase One Sys.	8-20-1982	Oasis Basic
Vector Graphic	9-24-1981	Vector Graphic Technical Training, Service & Installation
Tri-Community	Spring 74	IBM System/3 Operations and RPG II Programming
Cal Poly Pomona	Fall 1988	English 301 - Business Writing
Citrus College	Spr. 1979	150 - Introduction to Basic Programming
Citrus College	Spr. 1979	222 - Cobol Subprograms
Mt SAC	Spr. 1980	DP48 - Data Processing Seminar / Work Experience
Mt SAC	Sum 1979	BUS20 - Principles of Business
Mt SAC	Spr. 1979	DP10B - Advanced Data Processing
Mt SAC	Spr. 1979	DP24 - Fortran IV Programming
Mt SAC	Spr. 1979	DP44 - Advanced RPG II Programming
Mt SAC	Spr. 1979	DP46 - IBM S/360 Assembler Language Coding
Mt SAC	Fall 1978	DP10A - Introduction to Data Processing
Mt SAC	Fall 1978	DP20 - Introduction to Systems Analysis and Design
Mt SAC	Fall 1978	DP26 - COBOL Programming
Mt SAC	Fall 1978	DP32 - Fundamentals of Operating Systems
Mt SAC	Fall 1978	DP34 - RPG II Programming