

## Michael A. Patton

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July 1, 2014

### Overview

I have over 35 years experience with the net (I can't say "with The Internet" since it didn't have that name in 1975 when I first used it), and a little more experience with non-networked computers (over 40 years). I have used many computer languages and as a result, I find I can learn most any computer language enough to start writing real programs in a few hours to a day. My experience includes a wide variety of hardware, operating systems, and application software.

I have over 30 years of experience in production networks. Roles have included engineering, operations, routing, topology design, and performance measurement. The networks varied from small networks for small ISPs and ASPs to global networks for both multinational corporations and for DoD. I also have experience in designing application overlays to make efficient use of Internet infrastructure as well as the architecture for a network monitoring and analysis appliance (for which I was granted US Patent 7,242,681).

My main areas of expertise are in Internet routing and architecture, especially design of large networks or using all the tools of network design to achieve special goals such as load balancing or traffic management. This can be applied to core network engineering as well as engineering of interconnect plans, server farm performance, or distributed server setups.

### Professional Experience

#### 1997-now MAP Network Engineering

Working as an independent *Internet Engineering Consultant* I have contributed to a wide range of projects. My primary role has been in routing and infrastructure, designing BGP peering and global routing strategies as well as internal network architecture. I have also contributed to product design work for internet integration, and software customization use in specialized or experimental setups.

Projects included a large multinational corporation which had me do an independent evaluation of their existing global internet, with thousands of Ethernets worldwide. This resulted in a validation of the internal architecture, but a complete redesign of the interconnect with the external Internet, including separate DMZ and access Ethernets. Another substantial project was developing a Network Monitoring and Analysis System for Sandstorm Enterprises called NetIntercept. Sandstorm was acquired by NIKSUN largely on the strength of this product.

#### 1992-1996 BBN

1996: Working in the Network Engineering Department I did several Engineering tasks for the nationwide BBN PlaNet network. These included both working with clients of the network to solve complex problems escalated from the front-line operations staff and also long term performance analysis for customers in the marketing department in support of new product offerings.

From 1995 through 1996: As a member of the *Research Staff* in the Advanced Network Technology Department, I did software development and operational analysis on several leading edge network experiments. These included developing visualization tools for a new Internet Routing Architecture (Nimrod) and performance analysis of a test of a new multicast forwarding paradigm.

From 1992 through 1995: As *Network Engineer* in the Real-Time Networking Department, I had primary engineering responsibility for operation of a worldwide network for the DoD.

**Professional  
Experience  
cont'd**

1987-1992 **MIT Laboratory for Computer Science**

As *Network Manager* for LCS I oversaw a network of nearly 400 hosts including a few small personal computers, large numbers of workstations, and some large timesharing service machines. The network used principally the TCP/IP and Chaos protocol suites. My responsibilities included planning, operations, and development. These included duties of Network Engineer, NOC staff, and Software Development. Additional responsibilities included representation at various organizations including IETF and DECUS.

1982-1987 **Perception Technology**

I started as *Chief Systems Programmer* and became *Manager of Software Development* in 1985. My major project at Perception was the development and support of a Real-time data communications system which runs on LSI-11 processors. This system was the company's Vocom-I series product for which I was still the primary support person when I left.

1981-1982 **MIT Laboratory for Computer Science**

While completing my degree I worked part-time as a *Programmer* in the Computer Systems Communications group at LCS.

1979-1981 **Brigham and Women's Hospital**

I worked as *Assistant System Manager* on the Radiology Department's computer systems which included a PDP-11/70 running RSX11-D and a VAX 11/780 running VMS.

1973-1978 **Massachusetts Institute of Technology**

While I was a student at the Massachusetts Institute of Technology, I did *Programming* for various laboratories.

1970-1976 **Outlet Company**

Accounting software on NCR Century and IBM 360 mainframes.

**Other  
Experience**

2006-2010 **Whitingham Ambulance Service**

I was a volunteer with the Whitingham Ambulance Service and held a *First Responder* rating with the National Registry of EMTs and was a Vermont *Emergency Care Attendant*.

1985-now **Home Systems and Network**

I have more computers, of more types, and a larger network in my house than many small businesses. In maintaining this heterogeneous collection, and putting it to use both in household and business related ways, I have developed a facility with making systems work together to achieve objectives.

1973-1993 **Tech Model Railroad Club of MIT**

The Tech Model Railroad Club (TMRC) had several PDP-11 computers. During my time with the club, I was the person primarily responsible for the operation and maintenance of their computers, as well as development of specialized software for layout operation.

1970-1974 **Bristol High School**

While a student at BHS and for a period of a year thereafter, I wrote many programs to aid the use of their PDP-8/E system and advised on the considerations for expansion during this time.

**Education**

**MIT** (Cambridge, MA)

Bachelor of Science degree in Computer Science, received June 1982.

**Bristol High School** (Bristol, RI)

High School diploma, received June 1973

**Brown University** (Providence, RI)

College Freshman Calculus course, 1971-1972

This printed version was prepared July 1, 2014 from the web version at <http://MAP-NE.com/resume/>, which has more information and may be more up-to-date.