

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Apple Inc.
Petitioner,

v.

VirnetX, Inc. and Science Application International Corporation,
Patent Owner

Patent No. 6,502,135

Issued: Dec. 31, 2002

Filed: Feb. 15, 2000

Inventors: Edmund C. Munger, *et al*

Title: Agile Network Protocol For Secure Communications With Assured System
Availability

Inter Partes Review No. IPR2013-00349

Declaration of Michael Fratto Regarding U.S. Patent No. 6,502,135

Declaration of Michael Fratto Regarding U.S. Patent No. 6,502,135

I, Michael Fratto, do hereby declare and state, that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: June 12, 2013



Mike Fratto

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	Engagement	1
B.	Background and Qualifications	1
C.	Compensation and Prior Testimony	4
D.	Information Considered.....	5
II.	LEGAL STANDARDS FOR PATENTABILITY	5
A.	Anticipation	7
B.	Obviousness.....	8
III.	THE '135 PATENT	13
A.	Effective Filing Date of the '135 Patent	13
B.	Prosecution History of the '135 Patent	16
C.	The Person of Ordinary Skill in the Art	18
D.	Overview of the Claims of the '135 Patent.....	18
E.	Description of the Background Technology Relevant to the '135 Patent.....	19
1.	The Open Internet	19
2.	Domain Names and the Domain Name System (DNS).....	21
a.	The DNS System	21
b.	Domain Names and URIs.....	24
c.	Domain Name Resolution	26
3.	Encryption, Tunnels, and Data Security	32
a.	Encryption	32
b.	Authentication	34
c.	IPSec – RFC 2401	38
d.	Tunneling.....	39
4.	VPNs	43
IV.	General Issues Related to My Patentability Analysis	48

A.	The Claims of the ‘135 Patent I Am Addressing in this Report	48
B.	Interpretation of Certain Claim Terms	54
1.	Virtual Private Network (VPN)	55
2.	Virtual Private Link.....	57
3.	Domain Name	58
4.	Domain Name Service	59
5.	DNS Server	60
6.	DNS Proxy Server.....	62
7.	Web Site	65
8.	Secure Web Site / Secure Target Web Site.....	66
9.	Secure Web Computer	67
10.	Target Computer	68
11.	Between a Client Computer and [target computer/secure web computer].....	69
C.	Prior Art References.....	71
1.	Exhibit 1007 – Aventail Connect v3.01/2.51 Administrator’s Guide (“Aventail”).....	71
2.	Exhibit 1008 - BinGO! User’s Guide incorporating by reference BinGO! Extended Feature Reference (collectively, “BinGO”).	72
3.	Request for Comment (RFC) Publications	74
4.	Exhibit 1014 – Reed et al., IEEE J. Sel. Areas Comm., 16(4): 482-494 (May 1998) (“ <u>Reed I</u> ”)).....	77
5.	Exhibit 1015 - Reed et al., “Proxies for Anonymous Routing,” 12 th Annual Computer Security Applications Conference, San Diego, CA (December 9-13, 1996) (“ <u>Reed II</u> ”))	78
6.	Exhibit 1022 – Aventail Connect v3.1/2.6 Administrator’s Guide (“Aventail Connect v3.1”)).....	80
7.	Exhibit 1021 – Aventail AutoSOCKS v2.1 Administrator’s Guide (“Aventail AutoSOCKS”))	81

8. Exhibit 1024 – Ferguson, P. and Huston, G., “What Is a VPN”, The Internet Protocol Journal, Vol 1., No. 2 (Sept 1998) (“Ferguson”)	81
V. Patentability Analysis of Claims 1-10, 12-15 and 18 of the ’135 Patent	82
A. Aventail Connect v3.01/2.5 Administrator’s Guide	82
1. Overview of Aventail	82
2. Comparison of Claims 1-10, 12-15 and 18 of the ’135 Patent to Aventail	126
a. Claim 1	126
b. Claim 2	131
c. Claim 3	133
d. Claim 4	134
e. Claim 5	138
f. Claim 6	139
g. Claim 7	151
h. Claim 8	152
i. Claim 9	155
j. Claim 10	158
k. Claim 12	162
l. Claim 13	163
m. Claim 14	166
n. Claim 15	169
o. Claim 18	171
B. BinGO! User Guide Incorporating By Reference the BinGO!	179
1. Overview of BinGO	179
2. BinGO Anticipates and/or Renders Obvious Claims 1-10, 12-15 and 18 of the ’135 Patent	217
a. Claim 1	217
b. Claim 2	220

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.