

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA

VERIZON SERVICES CORP. and )  
VERIZON LABORATORIES INC., )

Plaintiffs, )

v. )

VONAGE HOLDINGS CORP. and )  
VONAGE AMERICA, INC. )

Defendants. )

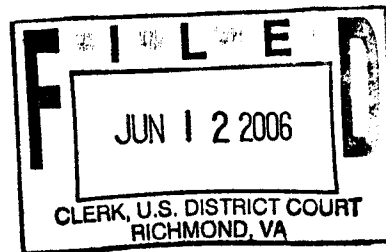
Serve: )

National Registered Agents, Inc. )  
160 Greentree Drive )  
Suite 101 )  
Dover, Delaware 19904 )  
(for Defendant Vonage Holdings Corp.) )

The Corporation Trust Company )  
Corporation Trust Center )  
1209 Orange Street )  
Wilmington, Delaware 19801 )  
(for Defendant Vonage America, Inc.) )

Case No. 1:06CV682

JURY TRIAL DEMANDED



**COMPLAINT FOR INJUNCTIVE AND OTHER RELIEF**

Plaintiffs, Verizon Services Corp. and Verizon Laboratories Inc. (collectively "Verizon"),  
by and through their attorneys, hereby complain against Defendants Vonage Holdings, Inc. and  
Vonage America, Inc. (collectively "Vonage") as follows:

**NATURE OF ACTION**

This is a patent infringement action involving Voice over Internet Protocol ("VoIP")  
technology which uses the Internet, at least in part, to provide telephone service to consumers  
and businesses.

## PARTIES

1. Verizon Services Corp. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 1310 North Courthouse Road, Arlington, Virginia 22201. Verizon Services Corp. is the owner of five of the seven patents at issue in this complaint.

2. Verizon Laboratories Inc. is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 40 Sylvan Road, Waltham, MA 02451. Verizon Laboratories Inc. is the owner of two of the seven patents at issue in this complaint.

3. Both Verizon Services Corp. and Verizon Laboratories Inc. are wholly owned subsidiaries of Verizon Communications Inc., whose subsidiaries own communications businesses in this Judicial District and throughout the United States. Verizon Communications Inc. was formed by the mergers of several companies including Bell Atlantic Corp. and GTE Corporation, which were early innovators in adding data capabilities to the traditional voice telephone networks, and MCI, Inc., which was an early innovator in both consumer long distance and Internet services, offering the first competitive long distance service and the first commercial Internet service.

4. Defendant Vonage Holdings Corp. ("Vonage Holdings") is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 23 Main Street, Holmdel, New Jersey 07733.

5. Defendant Vonage America, Inc. ("Vonage America") is a wholly owned subsidiary of Vonage Holdings Corp. and is a corporation organized and existing under the laws

of the State of Delaware, with its principal place of business at 23 Main Street, Holmdel, New Jersey 07733.

6. Vonage manufactures, uses, offers for sale, and sells broadband, Internet, and packet-based telephony products and services, as well as other products and services, throughout the United States and in this Judicial District.

#### **JURISDICTION**

7. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 271, *et. seq.* This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338.

8. Defendants Vonage Holdings and Vonage America conduct business in this Judicial District and have committed acts of patent infringement in this Judicial District, including, *inter alia*, making, using, offering for sale, and selling infringing products and services in this Judicial District.

9. Defendants Vonage Holdings and Vonage America have also knowingly and actively contributed to infringement by others and have induced others to commit such acts of infringement in this Judicial District.

#### **VENUE**

10. Venue is proper under 28 U.S.C. §§ 1391 and 1400(b).

11. Vonage resides in this Judicial District and has made, used, offered to sell, and sold, and continues to make, use, offer to sell, and sell products and services within this Judicial District, including, without limitation, broadband, Internet, and packet-based telephony products and services, which infringe Verizon's patents in this Judicial District.

12. Verizon Services Corp., owner of five of the seven patents at issue in this action, has its principal place of business at 1310 North Courthouse Road, Arlington, Virginia 22201.

13. Many of the named inventors on the patents at issue in this action, including Eric A. Voit, James Curry, Robert D. Farris, Jayant G. Gadre, Edward E. Balkovich, David E. Young, and Patrick E. White, reside in or near this Judicial District. Indeed, Eric Voit, a former Verizon employee (and the sole inventor on two patents and a co-inventor on two other patents at issue), works in Herndon, Virginia, and resides in Maryland.

14. A large number of relevant third party witnesses, including former employees of MCI, Inc., with information relevant to the development of the technology at issue, reside in or near this Judicial District.

## **FACTUAL BACKGROUND**

### **Voice Calling on the Internet**

15. The Internet is a worldwide system of computer networks (data communications systems made up of hardware and software) logically linked together and communicating with each other based on a common addressing scheme for identifying individual computers and a set of conventions or protocols for routing information across the networks so that the individual computers can communicate with each other. The Internet carries information broken up into individual “packets” which can follow different paths through the linked computer networks.

16. The traditional telephone network carries information on “circuits”; each circuit is a dedicated communications path between two communicating parties. On a traditional long-distance telephone call, a circuit or an end-to-end path is dedicated through the telephone network for the entire duration of the conversation. During a typical call, this dedicated circuit

may sit idle for approximately 60% of the time, because, for example, of pauses in the conversation.

17. It is possible to transform human speech into data packets and send them over the Internet. This technology is generically referred to as Voice over Internet Protocol (VoIP) or Internet telephony. This technology makes more efficient use of the physical network facilities, because packets carrying information for multiple calls can be delivered over common facilities and there are no idle circuits. VoIP technology also presents the opportunity to offer customers attractive features that traditional telephone networks cannot easily support, such as online call management, self-selection of available features, and integration with other forms of communication, such as messaging. Initial implementations of VoIP telephony were directed mainly to hobbyists and were not viable as commercial products.

18. For example, early VoIP service lacked an effective method for connecting calls between VoIP users and users of the traditional telephone networks. One of the major hurdles to be overcome in implementing VoIP telephony service for use by the general public was the problem of identifying where a call should be routed to an end user located on the Internet. Calling and called party addresses on the Internet needed to be translated into something akin to telephone numbers, a task that required an entirely new database architecture capable of locating, and updating the addresses of, any one of millions of potential users, within milliseconds.

19. Early VoIP telephony services also lacked an effective method of managing the business of selling telephone service. With the general "openness" of the public Internet -- and the risk of fraudulent access to customer accounts by unauthorized persons -- there was a need to make sure that a VoIP caller had a valid account, prior to authorizing and transporting the call. In order to permit a VoIP caller to monitor his or her own account for potential fraudulent use,

there was also a need to allow the caller to monitor costs and usage on a substantially real-time basis, which required significant improvements in the then-existing database architecture. Further, given that multiple service and network providers might be involved in completing a single VoIP call, authentication and authorization signaling methods recognized by the various networks had to be invented.

20. Early VoIP telephony services also lacked features that customers enjoyed and came to expect with traditional telephone service, such as Caller ID, voicemail, call forwarding, and voice communications between customers of different retailers, carriers or wholesalers. The appropriate signaling methods had to be invented and implemented in VoIP service to provide these features to VoIP consumers.

21. New devices known as Wi-Fi telephones can be used to make and receive VoIP telephone calls but these devices presented special challenges. In particular, it was necessary to invent and implement a method for Wi-Fi telephones to receive calls over the Internet when the Wi-Fi telephones might be located in any one of millions of “hot spots”, including homes, offices, coffee shops, hotels, and airports.

### **Verizon’s VoIP Technology**

22. Verizon’s early research and development in providing VoIP services on a commercial basis resulted in patented inventions that cover many basic aspects of a successful commercial operational implementation of VoIP technology, *e.g.*, signaling, interconnectivity, authentication, authorization, real-time cost management, billing, and fraud protection, as well as enhanced features such as voicemail, multiple phone registrations, call forwarding, and wireless handsets. The intellectual property developed and owned by Verizon, including the patents at

issue, contributed greatly towards making commercial Internet-based telephony practical and successful.

23. For example, Verizon developed a database architecture that can extract updated customer records almost instantaneously from databases connected to the public Internet so that VoIP callers can be authenticated and authorized to complete telephone calls onto any traditional telephone network connected to the Internet. Also, Verizon invented signaling methods that could be used to deliver VoIP telephone calls seamlessly over a myriad of networks to any termination point. Verizon also invented novel methods of implementing advanced calling features, such as call waiting, call forwarding, and voicemail, into VoIP telephony. Further, Verizon also invented the necessary signaling methods to permit registration and network access to users of Wi-Fi phones onto VoIP networks.

24. Verizon itself has commercialized these innovations. Bell Atlantic Communications, Inc., d/b/a Verizon Long Distance, an affiliate of the Verizon plaintiffs, currently offers to consumers and businesses a VoIP service under the service mark VoiceWing.

**Defendants Vonage Holdings' and Vonage America's Methods of Operation and Infringement of Verizon's Patents**

25. Vonage is currently infringing, in the United States, including in this Judicial District, as well as contributing to and inducing the infringement of, at least seven of Verizon's patents relating to VoIP technology (collectively "Verizon Patents"). The Verizon Patents are attached to this Complaint as Exhibits A-G.

26. Vonage has unfairly capitalized on Verizon's investment in VoIP research and development by using Verizon's patented technology in its VoIP service offerings, including Verizon's inventions relating to (a) gateway interfaces between a packet-switched and circuit-switched network, which is critical to implementing commercially-viable VoIP telephony; (b)

billing and fraud detection in commercial VoIP telephony; (c) call services in commercial VoIP telephony, such as call forwarding, follow me, and voicemail; and (d) methods relating to the use of Wi-Fi handsets in a VoIP network.

27. Through its product and service offerings, Vonage has appropriated the results of years of research conducted by Verizon and its predecessors. Vonage does not currently own any issued U.S. patents. Instead, Vonage relies on the intellectual property developed by Verizon in delivering its infringing product and services.

28. Vonage is aggressively marketing and advertising the services created with Verizon's appropriated intellectual property. Vonage's marketing and advertising targets customers of Verizon. As a direct result of its "saturation" marketing and advertising campaign, Vonage currently serves an estimated 47% of all domestic non-cable VoIP customers. Vonage's success in offering VoIP services, and its ability to provide such services to U.S. telephony consumers, are direct results of its unauthorized use of Verizon's patented technology.

29. Vonage has gained 1.1 million new customers – many of whom are Verizon's former customers – in the last 15 months. In the first quarter of 2006 alone, Vonage gained approximately 325,000 new subscribers. Since its inception, Vonage has spent over \$400 million on online, television, print, radio, and other advertising and marketing.

30. Recently, Vonage raised over \$500 million in an Initial Public Offering launched on May 24, 2006. Vonage announced in its SEC filings that it intends to spend the bulk of that money expanding its marketing and advertising of its infringing services. Vonage's expanded marketing and advertising of its infringing services threaten to shift more customers and goodwill to its business at Verizon's expense.

**COUNT 1: PATENT INFRINGEMENT**  
**Infringement of the '275 Patent**

31. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

32. Plaintiff Verizon Services Corp. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,430,275 B1 (“the ‘275 patent”) entitled “Enhanced Signaling For Terminating Resource,” which duly and legally issued in the name of Eric A. Voit, David E. Young and others on August 6, 2002. A copy of the ‘275 patent is attached to the Complaint as Exhibit A.

33. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 1 of the ‘275 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

34. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘275 patent has been and continues to be willful and deliberate.

35. Upon information and belief, Defendants Vonage Holdings and Vonage America’s infringement of the ‘275 patent will continue unless enjoined by this Court.

36. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘275 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 2: PATENT INFRINGEMENT**  
**Infringement of the '869 Patent**

37. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

38. Plaintiff Verizon Services Corp. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,137,869 (“the ‘869 patent”) entitled “Network Session Management,” which duly and legally issued in the name of Eric Voit, David E. Young and others on October 24, 2000. A copy of the ‘869 patent is attached to the Complaint as Exhibit B.

39. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 1 of the ‘869 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

40. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘869 patent has been and continues to be willful and deliberate.

41. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘869 patent will continue unless enjoined by this Court.

42. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘869 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 3: PATENT INFRINGEMENT**  
**Infringement of the '711 Patent**

43. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

44. Plaintiff Verizon Services Corp. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,104,711 (“the ‘711 patent”) entitled “Enhanced Internet Domain Name Server,” which duly and legally issued in the name of Eric Voit on August 15, 2000. A copy of the ‘711 patent is attached to the Complaint as Exhibit C.

45. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 15 of the ‘711 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

46. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘711 patent has been and continues to be willful and deliberate.

47. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘711 patent will continue unless enjoined by this Court.

48. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘711 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 4: PATENT INFRINGEMENT**  
**Infringement of the '574 Patent**

49. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

50. Plaintiff Verizon Services Corp. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,282,574 B1 (“the ‘574 patent”) entitled “Method, Server and Telecommunications System for Name Translation on a Conditional Basis and/or to a Telephone Number,” which duly and legally issued in the name of Eric Voit on August 28, 2001. A copy of the ‘574 patent is attached to the Complaint as Exhibit D.

51. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 19 of the ‘574 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

52. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘574 patent has been and continues to be willful and deliberate.

53. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘574 patent will continue unless enjoined by this Court.

54. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘574 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 5: PATENT INFRINGEMENT**  
**Infringement of the '304 Patent**

55. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

56. Plaintiff Verizon Laboratories Inc. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,128,304 (“the ‘304 patent”) entitled “Network Presence for a Communications System Operating over a Computer Network,” which duly and legally issued in the name of Steven Gardell and others on October 3, 2000. A copy of the ‘304 patent is attached to the Complaint as Exhibit E.

57. Upon information and belief, Defendants Vonage Holdings’ and Vonage America have been directly and indirectly infringing, at least, Claim 19 of the ‘304 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

58. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘304 patent has been and continues to be willful and deliberate.

59. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘304 patent will continue unless enjoined by this Court.

60. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘304 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 6: PATENT INFRINGEMENT**  
**Infringement of the '062 Patent**

61. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

62. Plaintiff Verizon Laboratories Inc. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,298,062 B1 (“the ‘062 patent”) entitled “System Providing Integrated Services over a Computer Network,” which duly and legally issued in the name of Steven Gardell and others on October 1, 2001. A copy of the ‘062 patent is attached to the Complaint as Exhibit F.

63. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 27 of the ‘062 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

64. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘062 patent has been and continues to be willful and deliberate.

65. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘062 patent will continue unless enjoined by this Court.

66. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘062 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**COUNT 7: PATENT INFRINGEMENT**  
**Infringement of the '880 Patent**

67. Verizon realleges and incorporates by reference the allegations set forth in paragraphs 1-30 above.

68. Plaintiff Verizon Services Corp. is the owner by assignment of all right, title, and interest in and to United States Patent No. 6,359,880 B1 (“the ‘880 patent”) entitled “Public Wireless/Cordless Internet Gateway,” which duly and legally issued in the name of James Curry and Robert D. Farris on March 19, 2002. A copy of the ‘880 patent is attached to the Complaint as Exhibit G.

69. Upon information and belief, Defendants Vonage Holdings and Vonage America have been directly and indirectly infringing, at least, Claim 1 of the ‘880 patent by making, using, selling, and offering for sale VoIP products and services, contributing to the use by others of VoIP products and services, and inducing others to use VoIP products and services that infringe Verizon’s Patents.

70. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘880 patent has been and continues to be willful and deliberate.

71. Upon information and belief, Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘880 patent will continue unless enjoined by this Court.

72. As a direct and proximate result of Defendants Vonage Holdings’ and Vonage America’s infringement of the ‘880 patent, Verizon has suffered and will continue to suffer irreparable injury and damages in an amount not yet determined for which Verizon is entitled to relief.

**PRAYER FOR RELIEF**

73. Wherefore, Verizon requests entry of judgment in its favor and against Defendants Vonage Holdings and Vonage America as follows:
- a) Enter judgment that Defendants Vonage Holdings and Vonage America have directly infringed Verizon's Patents;
  - b) Enter judgment that Defendants Vonage Holdings and Vonage America have induced infringement of Verizon's Patents;
  - c) Enter judgment that Defendants Vonage Holdings and Vonage America have contributed to infringement of Verizon's Patents;
  - d) Enter a permanent injunction, pursuant to 35 U.S.C. § 283, restraining and enjoining Defendants Vonage Holdings and Vonage America and their respective officers, agents, servants, employees, attorneys, customers, and those in concert or participation with them from any further sales or use of their infringing products and services and any other infringement of Verizon's Patents, whether direct or indirect;
  - e) Enter judgment ordering Defendants Vonage Holdings and Vonage America to compensate Verizon for infringement of Verizon's Patents pursuant to 35 U.S.C. § 284;
  - f) Enter a judgment ordering Defendants Vonage Holdings and Vonage America to pay enhanced damages pursuant to 35 U.S.C. § 284;
  - g) Enter a judgment for an award of pre-judgment and post-judgment interest and costs to Verizon pursuant to 35 U.S.C. § 284;
  - h) Enter a judgment for an award of Verizon's reasonable attorneys' fees pursuant to 35 U.S.C. § 285; and

- i) Grant to Verizon such other and further relief as the Court may deem just, proper, and equitable under the circumstances.

**DEMAND FOR JURY TRIAL**

Verizon demands a trial by jury.

Dated: June 12, 2006

Respectfully Submitted,

**VERIZON SERVICES CORP. and  
VERIZON LABORATORIES INC.**

By: 

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