

# EXHIBIT A

2007-1240, -1251, -1274

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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VERIZON SERVICES CORP., VERIZON LABORATORIES INC.  
AND VERIZON COMMUNICATIONS INC.,

*Plaintiffs-Appellees,*

v.

VONAGE HOLDINGS CORP.  
AND VONAGE AMERICA, INC.,

*Defendants-Appellants.*

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*APPEALS FROM THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
in Case No. 1:06-CV-682, Senior Judge Claude M. Hilton*

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**BRIEF FOR PLAINTIFFS-APPELLEES**

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## STATEMENT OF FACTS

Six claims of three patents—all method claims—are at issue:

- Claim 20 (dependent on claim 15) of U.S. Patent No. 6,104,711, issued August 15, 2000;
- Claim 27 (dependent on claim 26) of U.S. Patent No. 6,282,574, issued August 28, 2001 (on a continuation application sharing the '711's specification); and
- Independent claim 1 and dependent claims 6, 7, and 8 of U.S. Patent No. 6, 359,880, issued March 19, 2002.

Although Vonage mentions the '275 and '869 patents (which the jury found not infringed and not invalid, A38-40), *see* VGBr. 12, 56 n.14, it presents no argument about them in text, and develops no argument about them anywhere, and so is limited here to the '711, '574, and '880 patents. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1319-20 (Fed. Cir. 2006) (“arguments raised in footnotes are not preserved”; “developed argument” in opening brief required).

### A. The '574 and '711 Patents

#### 1. The Specification and Asserted Claims

Although the '574 and '711 patent claims do not stand or fall together, as to either infringement or validity, they share a specification. That specification describes certain advances relating to communications that use a public packet-switched network, such as the Internet; and the claims at issue relate particularly to

communications that involve *both* a packet-switched network *and* the traditional telephone network (“public switched telephone network,” or PSTN). Noting that “[a]ttention recently has been directed to implementing a variety of communications services, including voice telephone service, over . . . the Internet” (A4203(1:13-16)), the specification describes addressing methods on the Internet. End-users use easily remembered “domain names”—which can be “a textual address such as ‘eric.voit@phone’ or a telephone number based name such as ‘301-608-2908@phone’” (A4208(11:60-62))—for initiating a communication, and the Internet in turn uses Internet Protocol addresses (IP addresses) for internal routing. *See* A4203-04(2:12-3:7).<sup>2</sup> Software was available for users’ personal computers to compress and packetize voice data to send over the Internet between persons registered with an Internet server. A4204(3:14-29). At the same time, the PSTN had separately been improved (by creation of “an Advanced Intelligent Network (AIN)”) to give consumers features such as call forwarding and voice mail. A4204(3:42-4:16). Accordingly, “a need exist[ed] for enhanced address management [over the Internet]” to “offer customers using that network service features similar to those commonly available” on the PSTN. A4204(4:17-23).

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<sup>2</sup>We cite the ‘711 specification when discussing it or the ‘574 patent.

The specification states several objectives served by the inventions described and claimed. One, focused on (hybrid) Internet-PSTN communications, is “to provide a name or address server for translating textual domain names into telephone numbers.” A4204(4:29-30). Another calls for providing “different addresses in response to a request for translation of one name” (*e.g.*, to route a call to voice mail when the called party does not answer). A4204(4:36-37). In introducing the best-mode description, the specification notes the breadth of the inventions: “The present invention utilizes enhanced processing, responsive to name translation requests, to provide selective routing services through a public packet switched data network. The inventive name processing can apply to any translation of a name into address or routing information for a packet data network . . . .” A4205(6:37-42).

The ‘574 patent “generally relates to . . . sending a name translation request out to locate someone, . . . the result of which is used . . . for a call which is partially completed over the public switched telephone network.” A5802(371). Asserted claim 27 depends on independent claim 26. These claims involve a “server” receiving a “name translation request” that “include[s]” a “name” to be “translated.” The translation required is “into a telephone number associated with

a name included in the request,” which is then included with other information in a reply sent to “a calling device.” Claim 26 reads (A4736):

26. A method comprising:  
receiving a name translation request at a server coupled to a public packet data network;  
translating a name included in the request into a destination telephone number associated with a name included in the request;  
transmitting a reply containing both the destination telephone number and a packet data network address of a telephone gateway coupled between the public packet data network and a telephone network through the public packet data network to a calling device.

Claim 27—the one at issue—reads (A4736):

27. A method as in claim 26, wherein the address is an Internet Protocol address.

In the ‘711 patent, asserted claim 20 depends on independent claim 15. Some terms overlap with those of the ‘574 claims, but here the “name” is “translated” into one of at least two “destination address[es]” depending on the result of a “conditional analysis.” Claim 15 reads (A4211):

15. A method comprising:  
receiving a name translation request at a server coupled to a public packet data network;  
executing a conditional analysis in response to the name translation request;  
if the conditional analysis produces a first result, translating a name included in the name translation request into a first destination address;  
if the conditional analysis produces a second result, translating the name included in the name translation request into a second destination address;  
and

transmitting a response message containing the first or the second destination address to a calling device for use in establishing communication at least partially through the public packet data network.

Claim 20—the one at issue—further specifies the destination addresses and requires involvement of the PSTN (A4211):

20. A method as in claim 15; wherein:  
the first and second destination address includes a numeric Internet Protocol address; and  
the second destination address further includes information relating to call routing via a public switched telephone network.

## 2. The Processes Found to Infringe

**'574 Patent.** As illustrated at A13034-13044, Vonage infringes when it processes both “outbound” calls (from its subscribers to the PSTN) and “inbound” calls (the other way). A5803(372-73). For outbound calls: When a Vonage subscriber dials, his equipment (Terminal Adapter) takes the punched-in digits and converts them to a Session Initiation Protocol (SIP) URI (uniform resource identifier)—which is a name—of a form “SIP:evoit@phone.com” or “SIP:8041234567”; it then embeds the SIP URI inside a SIP Invite—which is a name translation request—and sends it over the Internet to a Vonage Outbound Proxy server. A5805(381-83); A12906 (SIP Invite). The Vonage system twice translates the name into a phone number: first, the Outbound Proxy converts the SIP URI into a telephone number (using that telephone number, in turn, to

determine how to route the call); second, when it sends the SIP Invite to a gateway connecting the Internet to the PSTN, the gateway extracts the telephone number from the SIP URI. A5806(386-87); A5817(429-30); A5976(958).<sup>3</sup> When the called party on the PSTN answers, the gateway sends a “200 OK” message—which contains the destination telephone number and the gateway’s IP address (or the IP address of an “RTP [Real Time Protocol] relay” in certain cases)—back to the Outbound Proxy and the caller’s equipment. A5806-09(387-93, 396-98). *See* A13015-16; A12939-45; A12901-02. Thus, all steps of the asserted ‘574 patent claim are performed.

The steps are performed for inbound calls, too. When a PSTN-originating call arrives at the gateway, the gateway becomes a calling device that creates a SIP Invite and sends it to a Vonage Inbound Proxy server, which converts the SIP URI

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<sup>3</sup>Dr. Houh explained: “A telephone number is different from a SIP URI. So you’ve gone from a SIP URI, which is a long thing that starts with SIP:, into something that is just a telephone number which is required to do the lookups I mentioned, and that is a translation.” A5817(429-30). He also explained that, while the task may seem “trivial” for a human being, computers are doing the reading here, and a “complex” computer program is required for extracting a telephone number from inside a SIP-formatted string of characters. A5820(440-41). Dr. Houh further explained: “Well, telephone numbers have a different formal language specification. You can’t, you can’t use a SIP invite in the place of a telephone number for purposes of computer programs, so you’re going from one formal language of that of SIP messages and SIP invites into telephone numbers, which is a different formal language.” A6513(1641-42).