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(54) Title: METHOD AND APPARATUS FOR ROUTING INTERNET CALLS

(57) Abstract

A telecommunications network (10) includes a public switched telephone network (12) and an Internet data network (14). The Internet data network (14) includes an Internet routing element (24) and a line access switch (26). The Internet routing element (24) is coupled to end office switches (16) and local switches (18) of the public switched telephone network (12) by modem trunks (30). The modem trunks (30) provide the Internet routing element (24) with Internet calls re-routed from the public switched telephone network (12) to prevent the Internet calls from congesting trunks (22) of the public switched telephone network (12). The Internet calls are received at an ATM multiplexer (58) within the Internet routing element (24). The ATM multiplexer (58) includes a pool of modems (60) that converts the analog signal on the modem trunks (30) into digital data. The ATM multiplexer (58) includes an ATM cell adaptation unit (66) that converts the digital data into ATM cells for transmission to an Internet Service Provider (42) over an ATM network (48). The ATM multiplexer (58) generates addressing information for the ATM cells through interworkings with signaling protocols of a signal transfer point network (28) and an SS-7 signaling network (44) in order to determine the destinations for the Internet calls. The line access switch includes a similar ATM multiplexer (94) to re-route Internet calls prior to entering the public switched telephone network (12).

