

US007068684B1

(12) United States Patent

Suder et al.

(54) QUALITY OF SERVICE IN A VOICE OVER IP TELEPHONE SYSTEM

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 877 days.

(21) Appl. No.: 09/775,018

(22) Filed: Feb. 1, 2001

(51) Int. Cl.

H04L 12/66 (2006.01)

H04J 1/02 (2006.01)

H04J 1/14 (2006.01)

H04M 11/00 (2006.01)

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

5,119,372 5,751,791 5,878,120 5,982,779 6,504,926 6,515,996 6,535,521 6,587,433 6,678,280	A * A * A B1 * B1 * B1 *	5/1998 3/1999 11/1999 1/2003 2/2003 3/2003 7/2003	Verbeek 370/230 Chen et al. 379/88.13 O'Mahony 379/93.09 Krishnakumar et al. 370/447 Edelson et al. 379/390.01 Tonnby et al. 370/401 Barghouti et al. 370/462 Borella et al. 370/230 Kim et al. 370/429
6,678,280	B1 *	1/2004	Kim et al 370/429

(10) Patent No.: US 7,068,684 B1 (45) Date of Patent: Jun. 27, 2006

6,735,209 B	1 * 5/2004	Cannon et al 370/401
6,760,429 B	1 * 7/2004	Hung et al 379/265.09
6,785,261 B	1 * 8/2004	Schuster et al 370/352
6,798,768 B	1 * 9/2004	Gallick et al 370/352
6,839,341 B	1* 1/2005	Nakajima 370/352
6.876.648 B	1 * 4/2005	Lee 370/353

OTHER PUBLICATIONS

Harry Newton, *Newton's Telecom Dictionary*, 16th Edition, copyright 2000, pp. 126-127.

Avaya Communication, "Avaya IP Telephone," available via the Internet at www lucent com/enterprise/solutions/eclips/pdf/black₁₃ white_paper pdf, Nov. 9, 2000.

Avaya Communication, "Quality of Service (QoS) considerations with 4600 Series IP Telephones," available via the Internet at www lucent com/enterprise/solutions/eclips/pdf/QoSwhite_paper pdf, Jan. 29, 2000.

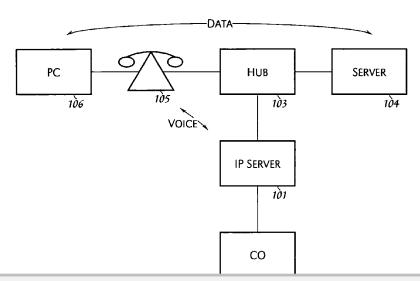
* cited by examiner

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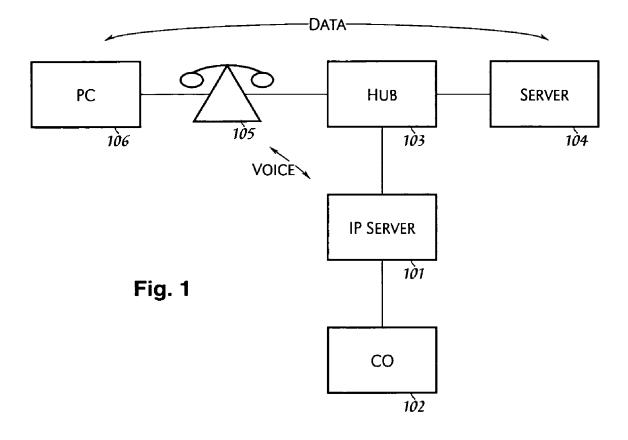
(57) ABSTRACT

An information handling system comprises a TCP/IP network connecting a hub to a multimedia server and the hub to a data server, and the hub to an IP telephony device that is then coupled to a network device. Data sent from the network device is addressed for transmission to the data server and is transmitted through the IP telephony device to the TCP/IP network. The IP telephony device monitors when an amount of data being received over the network falls below a predetermined threshold. If this occurs, the IP telephony device will send a signal to the multimedia server, which will then generate a congestion signal to send to all or selected IP telephony devices in the network to throttle data being received by the IP telephony devices from their respective connected network devices.

61 Claims, 13 Drawing Sheets







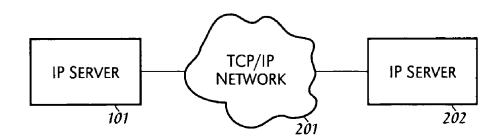
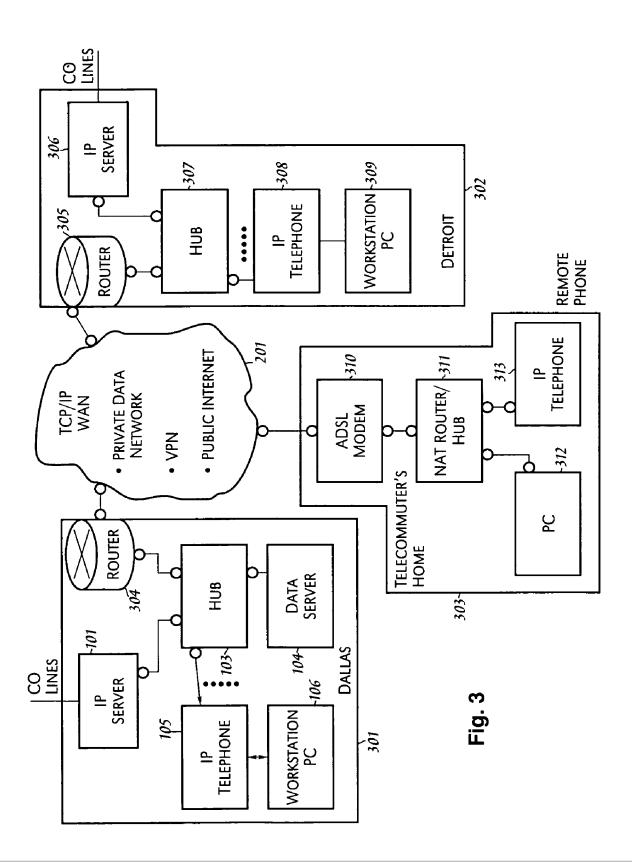
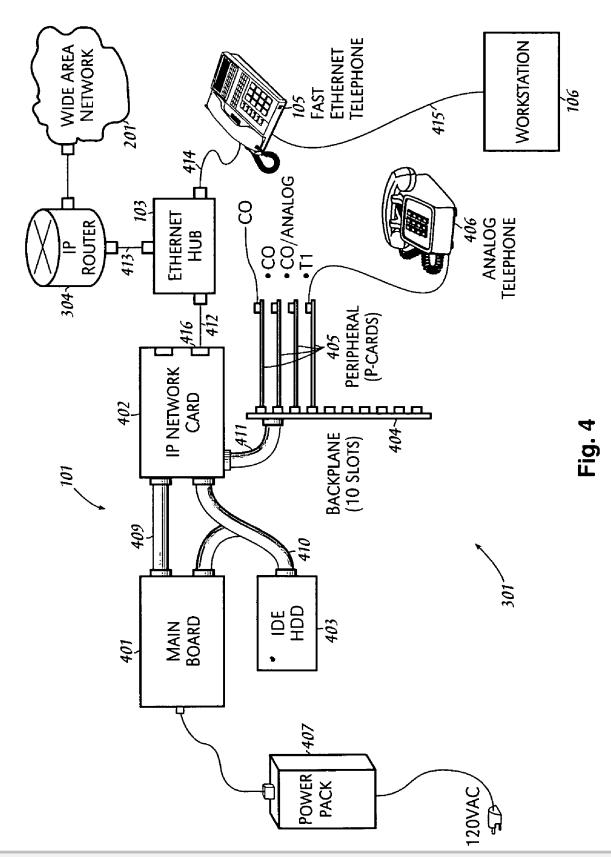


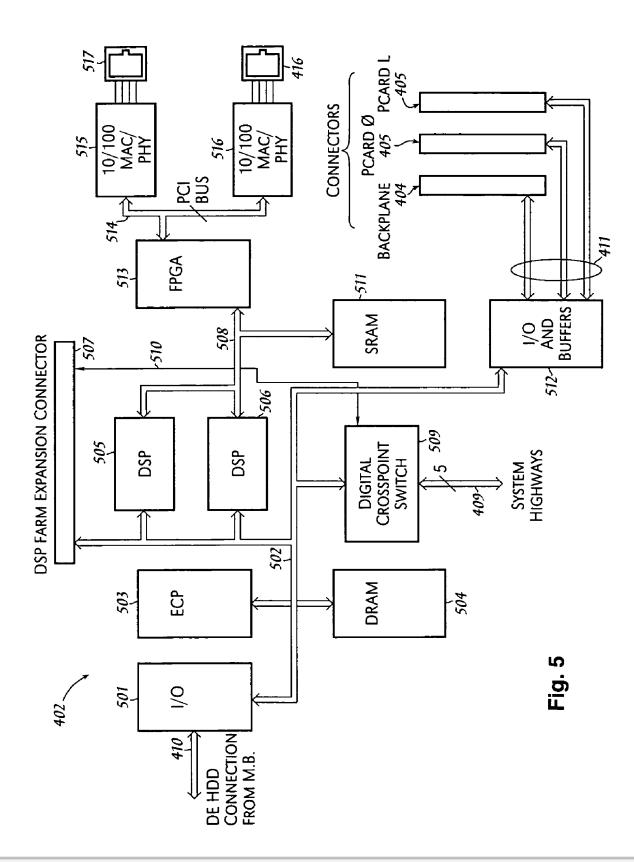
Fig. 2













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