Abstract: A method is provided for a telephone gateway device to bridge a local area network (LAN) equipment and a broadband modem to a wide area network (WAN). The method includes starting a PPPoE server process to establish a first PPPoE connection to the LAN equipment connected at a LAN interface of the gateway device, starting a PPPoE client process to establish a second PPPoE connection to the broadband modem connected to a WAN interface of the gateway device, exchanging first PPPoE negotiation information from the LAN equipment and a second PPPoE negotiation information from the broadband modem through the PPPoE server and the PPPoE client processes, establishing the first PPPoE connection to the LAN equipment at the LAN interface and the second PPPoE connection to the broadband modem at the WAN interface, and bridging the first and the second PPPoE connections.
INTERNATIONAL SEARCH REPORT

International application No. PCT/US 07/89136

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) ... β lpd β sfc 571-272-4300
Facsimile No. 571-273-3201 PCTOSP: 571-272-7774
Form PCT/ISA/2 1 0 (second sheet) (April 2007)

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
USPC - 370/352

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 370/352 - text search, see search terms below

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PUBWEST(PGPB), USPT(4)SOC_EPAB,IPAB,DialogPRO(Engineering),Google Scholar
Search Terms Used: PPP, point to point, Ethernet, PPPOE, bridg, WAN, LAN, broadband, modem, gateway, negotiat, establish, connection, VoIP

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 2003/0174714 A1 (MANIK et al.) 18 September 2003 (18.09.2003), entire document especially Figs 1, 2, 3A, 3B; para [0005],[0006], [0010], [0017]-[0019], [0021]-[0023], [0026]-[0028].</td>
<td>1, 2, 3, 6</td>
</tr>
<tr>
<td>Y</td>
<td>US 6,778,542 B1 (HASSAN-ALI et al.) 17 August 2004 (17.08.2004), especially Figs 1, 3, 9; col 3, in 7, 21-27; col 4, in 56-63; col 7, in 52-55; col 8, in 18-40; col 9, in 5-16, 24-27, 38-40.</td>
<td>3, 4, 7</td>
</tr>
</tbody>
</table>

D Further documents are listed in the continuation of Box C. []

* Special categories of cited documents:
“X” document defining the general state of the art which is not considered to be of particular relevance
“Y” earlier application or patent but published on or after the international filing date
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“O” document referring to an oral disclosure, use, exhibition or other means

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
“W” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

Date of the actual completion of the international search
11 March 2008 (1.03.2008)

Date of mailing of the international search report
11 APR 2008

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