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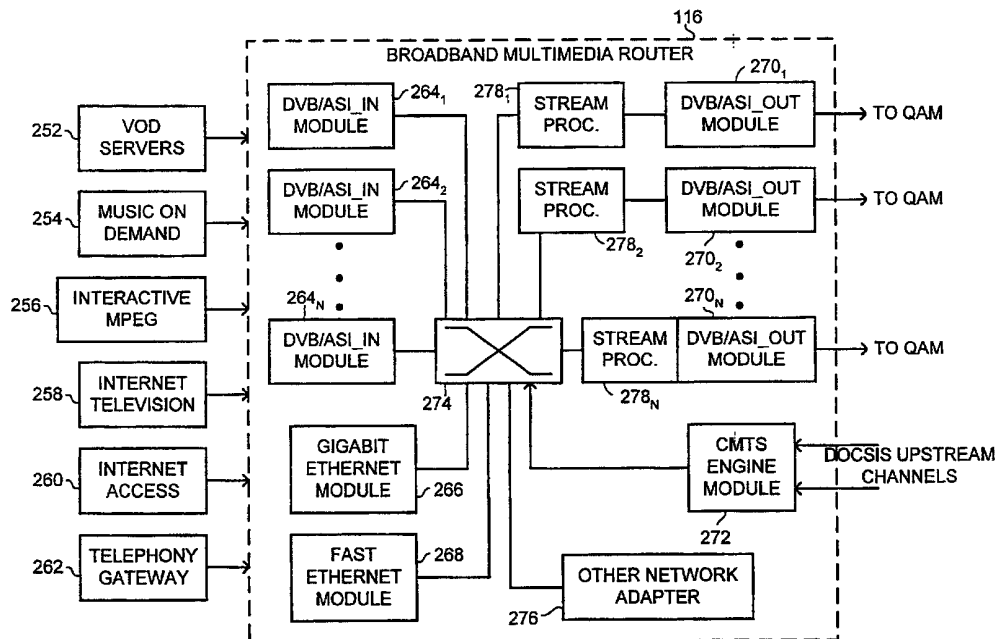
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[Continued on next page]

(54) Title: COMMUNICATION MANAGEMENT SYSTEM AND METHOD



(57) Abstract: Broadband multimedia system including a communication bus, a router, connected to the communication bus and further between a plurality of media sources and a plurality of network transmitters, a session manager, connected to the communication bus, where the session manager provides routing instructions to the router, for directing data received from the media sources to the network transmitters for transmitting over a broadband network.



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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/14544

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04L12/28 H04L12/44

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | US 5 561 669 A (LENNEY MARK A ET AL) 1 October 1996 (1996-10-01) abstract column 5, line 10 - line 21 figure 1 | 1, 15, 24 |
| A | PERKINS S ET AL: "TWO-WAY BROADBAND CATV-HFC NETWORKS: STATE-OF-THE-ART AND FUTURE TRENDS" COMPUTER NETWORKS AND ISDN SYSTEMS, NORTH HOLLAND PUBLISHING. AMSTERDAM, NL, vol. 31, no. 4, 25 February 1999 (1999-02-25), pages 313-326, XP000700303 ISSN: 0169-7552 Section 3.1.3 | 1, 15, 24 |

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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- *X* 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.
- *&* document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/14544

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|--|
| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | WO 97 36404 A (NEXT LEVEL COMM) 2 October 1997 (1997-10-02) | 33,39, 40,43-48 |
| Y | page 7, line 35 -page 8, line 22 page 9, line 18 - line 28 page 11, line 3 - line 19 page 12, line 7 - line 29 page 14, line 1 - line 12 page 19, line 9 - line 19 | 37,38, 49-53, 56-65 |
| Y | WO 98 10541 A (HYBRID NETWORKS INC) 12 March 1998 (1998-03-12) | 37,38, 49-53, 56-65, 67-72, 76,78,79 |
| A | abstract page 4, line 14 - line 22 page 5, line 8 - line 16 page 7, line 14 - line 17 claims 8-12 | 82-86 |
| Y | DAIL J E ET AL: "ADAPTIVE DIGITAL ACCESS PROTOCOL: A MAC PROTOCOL FOR MULTISERVICE BROADBAND ACCESS NETWORKS" IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, N.J, US, vol. 34, no. 3, 1 March 1996 (1996-03-01), pages 104-112, XP000557382 ISSN: 0163-6804 page 108, right-hand column, line 19 - line 41 page 109, right-hand column, line 35 -page 110, left-hand column, line 23 | 67-72 |
| Y | OLIPHANT A ET AL: "BROADBAND CPN DEMONSTRATOR USING WAVELENGTH AND TIME DIVISION MULTIPLEXING" ELECTRONICS AND COMMUNICATION ENGINEERING JOURNAL, INSTITUTION OF ELECTRICAL ENGINEERS, LONDON, GB, vol. 4, no. 4, 1 August 1992 (1992-08-01), pages 252-260, XP000309442 ISSN: 0954-0695 Section 3 | 76,78,79 |
| A | WO 99 09689 A (MOTOROLA INC) 25 February 1999 (1999-02-25) claim 1 | 87-90, 93,94 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/14544

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-32,97-100

System for switching packets between non-addressable ports

2. Claims: 33-48,101,102

Broadband multimedia system providing instructions from a session manager to a router

3. Claims: 49-75,103-106

Network session management system

4. Claims: 71-75,107,108

Method for dynamic network restructuring

5. Claims: 76-86,109,110

Remultiplexing engine in a packet switch system

6. Claims: 87-96,111,112

Method for rate adapted multiplexing data-over-broadband and media-over-broadband packets

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/14544

| Patent document cited in search report | A | Publication date | Patent family member(s) | Publication date |
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