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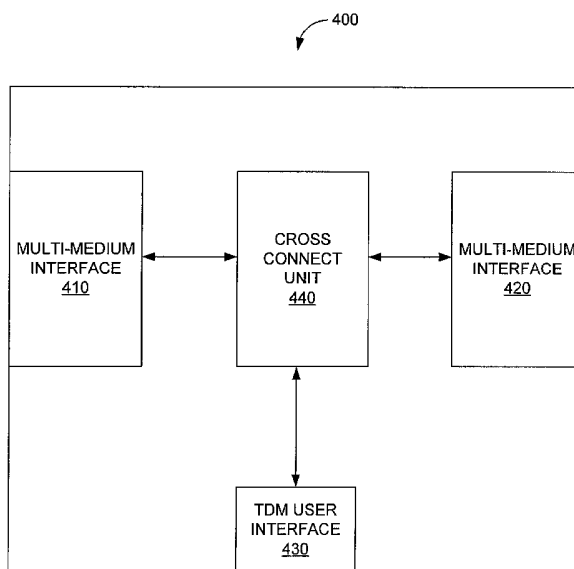
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[Continued on next page]

(54) Title: NETWORK NODE WITH MULTI-MEDIUM INTERFACES



(57) Abstract: A network node includes a network interface, a cross connect switch coupled to the network interface, and a multi-medium network interface coupled to the cross connect switch. The multi-medium network interface includes multiple network interfaces, such as an optical interface and a wireless interface. The wireless interface could be for example an RF wireless interface or a free-space optics interface. Some embodiments of the present invention may include both an RF wireless interface and a free-space optics interface. A TDM user interface is also coupled to the cross connect switch. In some embodiments, the network interface is also a multi-medium network interface. Furthermore, some embodiments can include additional multi-medium network interfaces.



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European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/56 H04Q11/04 H04B10/10

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)
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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.
X A	WO 95 30318 A (GASSEWITZ MICHAEL ;NEWBRIDGE NETWORKS CORP (CA); BEWS STEVE (CA);) 9 November 1995 (1995-11-09) page 11, line 15 - line 29; figure 2	1,7,8, 10,11, 39-41 2-6,9, 12-23, 42-54, 57-65
X A	--- US 6 049 593 A (ACAMPORA ANTHONY) 11 April 2000 (2000-04-11) column 3, line 45 -column 12, line 59; figures 1,3A	42-51, 57-65 1-23, 39-41, 52-54
A	--- EP 0 818 940 A (NORTHERN TELECOM LTD) 14 January 1998 (1998-01-14) figures 9,10 ---	1-23, 39-54, 57-65
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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	"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
"E" earlier document but published on or after the international filing date	"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
"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)	"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.
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 7 March 2003	Date of mailing of the international search report 16. 06. 2003
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Meurisse, W
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INTERNATIONAL SEARCH REPORT

International Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NOH T H: "ATM SCENARIOS FOR SDH/SONET NETWORKS" BELL LABS TECHNICAL JOURNAL, WILEY, CA, US, vol. 3, no. 1, 1998, pages 81-93, XP000750438 ISSN: 1089-7089 the whole document -----	1-23, 39-54, 57-65

INTERNATIONAL SEARCH REPORT

national application No.
PCT/US 01/49065

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.:

1-23, 39-54, 57-65

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: 1-23,39-54,57-65

A network node comprising an optical interface and a first wireless interface

2. Claims: 24-38,55,56

A network and node comprising a media abstraction unit

3. Claims: 66-94

Method and system for combining TDM and data packets

4. Claims: 95-113

Method and system for controlling a wireless link

5. Claims: 114-145

A method of operating a first network node coupled to a second network node comprising adapting one or more transmission parameters

6. Claims: 146-181

Method and system for forming and transmitting TDM frames

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/49065

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