

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 January 2002 (10.01.2002)

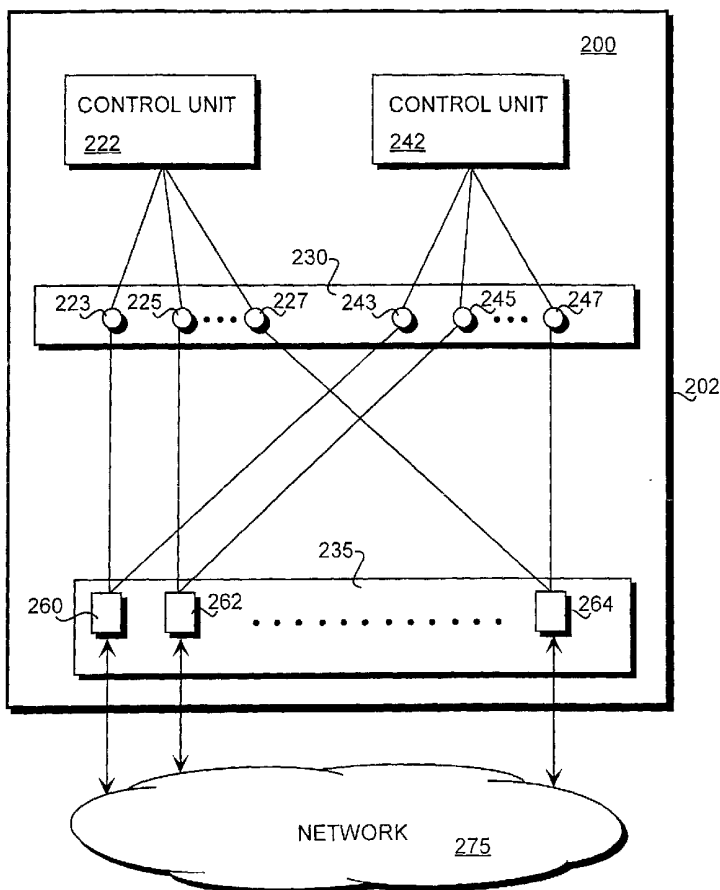
PCT

(10) International Publication Number
WO 02/003611 A3

- (51) International Patent Classification⁷: H04L 29/14, 12/56, 12/44, 12/46
- (74) Agent: MALLIE, Michael, J.; Blackely Sokoloff Taylor & Zafman, 7th Floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).
- (21) International Application Number: PCT/US01/19327
- (22) International Filing Date: 14 June 2001 (14.06.2001)
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/608,773 30 June 2000 (30.06.2000) US
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 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, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant: INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US).
- (72) Inventors: MATEJKO, Andrzej; Konwaliowa 9/14, PL-81-651 Gdynia (PL). DYRGA, Ryszard; Zamojska 32, PL-80-180 Gdansk (PL).

[Continued on next page]

(54) Title: RESILIENT CHASSIS-BASED NETWORK SWITCHING



(57) Abstract: A resilient chassis-based network switch includes redundant control units connected to a network interface through an additional logical interface. The network interface includes multiple data communication ports to transmit data to and receive data from a variety of devices connected to the switch through one or more networks. When coupled to the network interface through the logical interface, each control unit may be viewed as an independent logical switch equipped to transmit and receive data through any of communication ports regardless of the operating state of the other control unit(s).



WO 02/003611 A3



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

26 September 2002

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/19327

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/14 H04L12/56 H04L12/44 H04L12/46

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

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, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 953 314 A (BARACKA JR RONALD LOUIS ET AL) 14 September 1999 (1999-09-14) abstract column 1, line 50 -column 5, line 2 figures 1,2	1,4-6,8, 9
Y		2,3,12, 16,18
A		13-15, 17,19,20
Y	US 5 802 047 A (KINOSHITA HIROYUKI) 1 September 1998 (1998-09-01) abstract column 2, line 31 -column 2, line 63 column 3, line 31 -column 4, line 3; figure 5	2,3,12, 16,18

	-/--	

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)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

22 January 2002

Date of mailing of the international search report

26.04.02

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

Nocentini, I

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/19327

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>JO K Y ET AL: "Design and analysis of multiprotocol networks with IP routers". MILITARY COMMUNICATIONS IN A CHANGING WORLD. MCLEAN, VA., NOV. 4 - 7, 1991, PROCEEDINGS OF THE MILITARY COMMUNICATIONS CONFERENCE. (MILCOM), NEW YORK, IEEE, US, vol. 2, 4 November 1991 (1991-11-04), pages 193-197, XP010042213 ISBN: 0-87942-691-8 page 194, left-hand column, line 45 -page 195, left-hand column, line 24 -----</p>	5,15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/19327

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.:

1-6, 8, 9, 12-20

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: 1-6,8,9,12-20

An apparatus and a method for transmitting data between communication ports with 2 control units, and where logical ports are used.

2. Claim : 7

An apparatus comprising a chassis, a first blade secured within the chassis where a volatile memory is embedded, a second blade secured within the chassis where at least one control unit is embedded.

3. Claims: 10-11

An apparatus for transmitting data between communication ports with 2 control units, where each control unit independently maintains network status information.

INTERNATIONAL SEARCH REPORT

information on patent family members

International Application No PCT/US 01/19327
--

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 5953314	A	14-09-1999	AU 9118398	16-03-1999
			CA 2302500	04-03-1999
			EP 1010277	21-06-2000
			WO 9911002	04-03-1999
US 5802047	A	01-09-1998	JP 2770782	02-07-1998
			JP 8331165	13-12-1996