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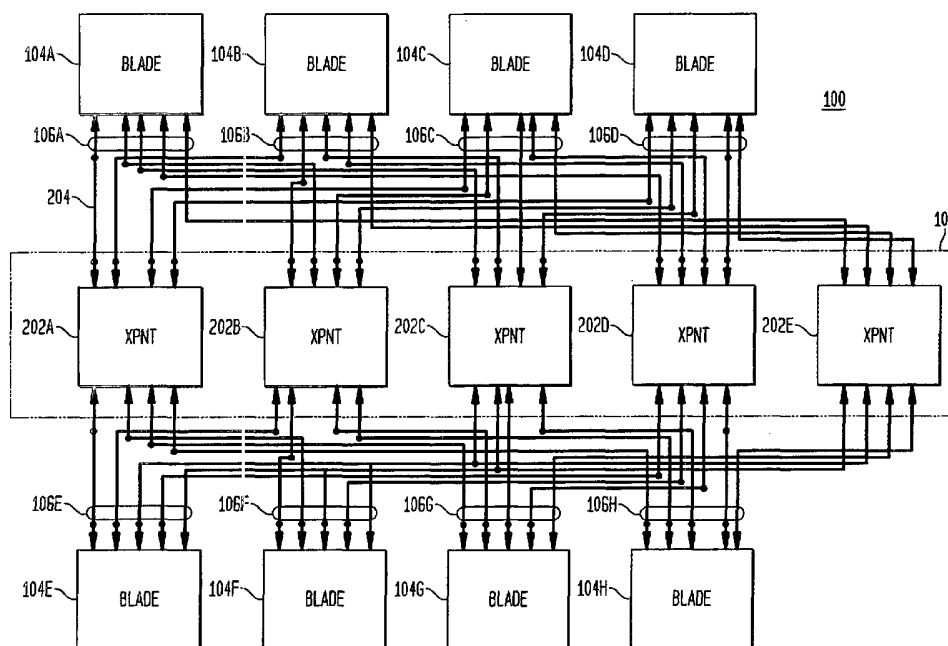
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[Continued on next page]

(54) Title: HIGH-PERFORMANCE NETWORK SWITCH



(57) Abstract: A backplane interface adapter (600) with error control and redundant fabric for a high-performance network switch (100). The redundant fabric transceiver of the backplane interface adapter improves the adapter's ability to properly and consistently receive narrow input cells (1300) carrying packets of data and output wide striped cells (1500) to a switching fabric.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/43113

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04J 3/02, 3/14, 3/24; H04Q 11/04

US CL : Please See Extra Sheet.

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)

U.S. : 370/229, 230, 244, 352, 359, 395.1, 395.7, 395.71, 395.72, 398, 412, 413, 414, 419

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 practicable, search terms used)

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,870,538 A (MANNING et al) 09 February 1999, col. 1 lines 54-63, Fig. 1, col. 3 line 45 to col. 4 line 22, col. 8 lines 21-39, col. 5 lines 9-20,	1-3, 8-11
A	US 5,430,442 A (KAISER et al) 04 July 1995, see entire document.	1-11
A, P	US 6,151,301 A (HOLDEN) 21 November 2000, see entire document.	1-11
A, P	US 6,038,288 A (THOMAS et al) 14 March 2000, see entire document.	1-11

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family 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 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	

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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer DOUGLAS OLMS Telephone No. (703) 305-4703 <i>Dn Karen A. Ward</i>

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/43113

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

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B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

EAST

search terms: switching fabric, serial pipes, serial data streams multiple stripes, cross points, port slices, wide striped cells, block, subblocks, backplane interface adapter, integrated bus translator, packet processor

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-11, drawn to switching control including serial-parallel or parallel-serial conversion for input or output.

Group II, claims 12-60, drawn to switching control including time and space switches.

Group III, claims 61-74, drawn to techniques for communication using message having an address header.

Group IV, claims 75-94, drawn to pathfinding or routing using a queuing arrangement.

Group V, claims 95-108, drawn to pathfinding using queuing including contention resolution.

Group VI, claims 109-125, drawn to combining or distributing information via time channels including synchronizing.

Group VII, claims 126-125, drawn to switching control including a bus switch.

The inventions listed as Groups I-VII do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: group I is drawn to pathfinding switching control including serial-parallel or parallel-serial conversion for input or output, while group II is drawn to time and space switches, group III is drawn to a communication technique using message having an address header, group IV is drawn to a queuing arrangement, group V is drawn to contention resolution, group VI is drawn to synchronizing, group VII is drawn to switching control having a bus switch.