



US005652839A

United States Patent [19]

[11] Patent Number: **5,652,839**

Giorgio et al.

[45] Date of Patent: ***Jul. 29, 1997**

[54] **METHOD OF NON-INTRUSIVELY SENSING STATUS IN A COMPUTER PERIPHERAL**

[75] Inventors: **Paul J. Giorgio**, Providence; **Stephen J. Amuro**, Middletown, both of R.I.

[73] Assignee: **The United States of America as represented by the Secretary of the Navy**, Washington, D.C.

[*] Notice: The term of this patent shall not extend beyond the expiration date of Pat. No. 5,471,634.

[21] Appl. No.: **219,557**

[22] Filed: **Mar. 29, 1994**

[51] Int. Cl.⁶ **G06F 13/20; G06F 13/40; G06F 15/16**

[52] U.S. Cl. **395/200.11; 395/200.2; 395/839**

[58] Field of Search **395/200, DIG. 1, 395/200.01, 200.11, 200.2, 825, 835, 839; 364/200, 283, 265, 243, 242.95**

[56] References Cited

U.S. PATENT DOCUMENTS

4,783,730 11/1988 Fischer 364/200

4,864,532 9/1989 Reeve et al. 364/900

Primary Examiner—Alyssa H. Bowler
Assistant Examiner—Mark H. Rinehart
Attorney, Agent, or Firm—Michael J. McGowan; Robert W. Gauthier; Prithvi C. Lall

[57] ABSTRACT

An improved method of having an SCSI controller provide a logical connection between a plurality of host processors using a single SCSI initiator. The controller contains removable host adapters for connection to any type of host processor interface. When a host processor requests status information of a target device, that status information is passed to the requesting processor and subsequently stored in the controller and made available to all other host processors. In addition, a fault tolerant performance monitoring algorithm, executing within the controller, is scheduled to non-intrusively and periodically check the status of each SCSI target device and to store that status information for all host processors. The advantage to such a controller is that by using only a single SCSI initiator, each host processor can independently and logically connect through the controller and SCSI initiator to a target without clearing target status information for other host processors. This is particularly advantageous when adapted to function in a local area network (LAN) arrangement wherein a significant number of host processors are requesting data.

2 Claims, 5 Drawing Sheets

