

## United States Patent 1191

Hathorn et al.

[11]

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5,574,950

**Date of Patent:** [45]

Nov. 12, 1996

| [54] | REMOTE DATA SHADOWING USING A   |
|------|---------------------------------|
|      | MULTIMODE INTERFACE TO          |
|      | DYNAMICALLY RECONFIGURE CONTROL |
|      | LINK-LEVEL AND COMMUNICATION    |
|      | LINK-LEVEL                      |

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[73] Assignee: International Business Machines Corporation, Armonk, N.Y.

[21] Appl. No.: 203,248

[56]

Mar. 1, 1994 [22] Filed:

[51] Int. Cl.<sup>6</sup> ...... G06F 15/02

U.S. Cl. ...... 395/861; 395/200.09; 364/222.2; 364/242.94; 364/242.5; 364/DIG. 1

395/650, 145, 600, 575, 200.01, 200.02,

200.09, 821, 861

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Primary Examiner-Thomas C. Lee Assistant Examiner-Terance J. Stanton Attorney, Agent, or Firm-Floyd E. Anderson; Robert M. Sullivan

### [57] ABSTRACT

A remote copy system incorporates dynamically modifiable ports on the storage controllers such that those ports can operate either as a control unit link-level facility or as a channel link-level facility. When configured as a channel link-level facility, a primary storage controller can appear as a host processor to a secondary storage controller. Using dynamic switches coupled between primary and secondary sites, fewer ESCON communication links are required since the ESCON communication links can function either as a channel or as storage controller communication link.

### 17 Claims, 9 Drawing Sheets

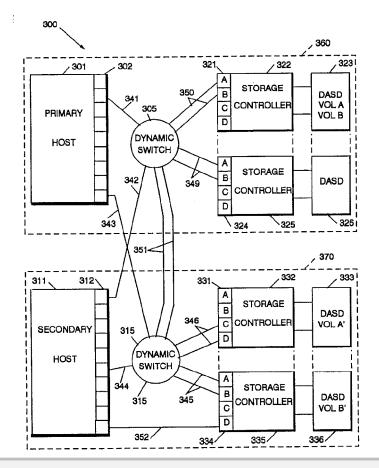
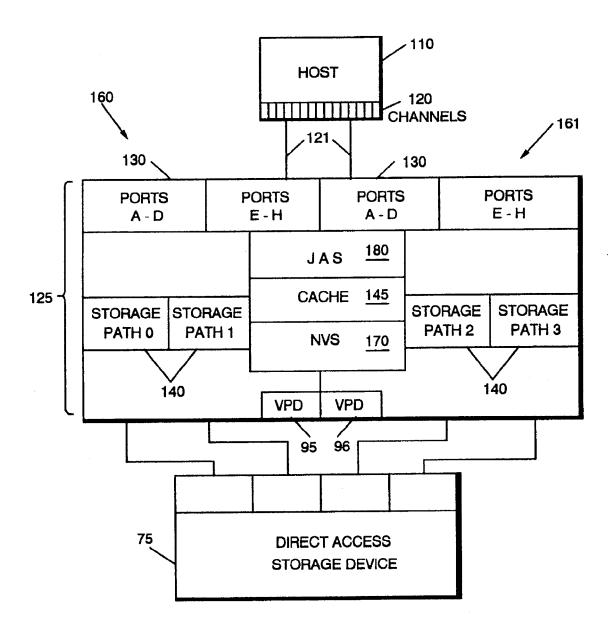
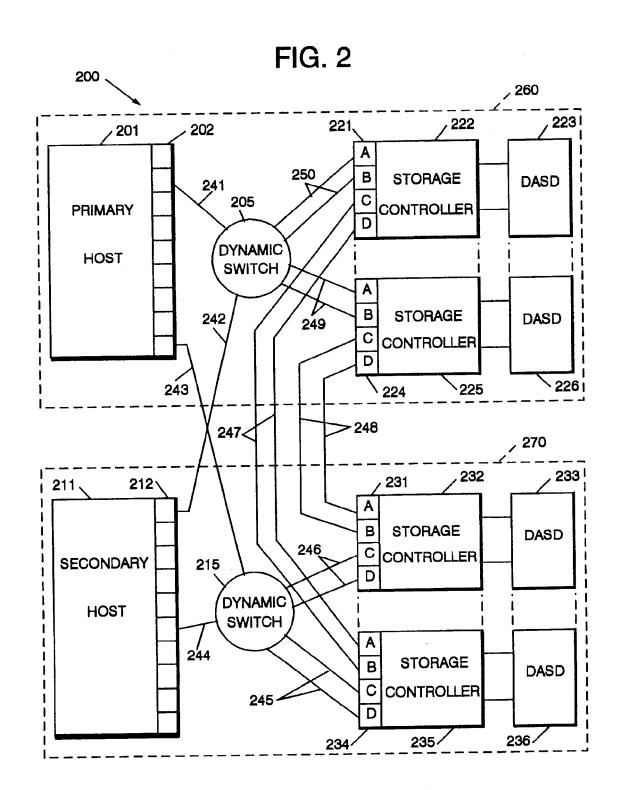


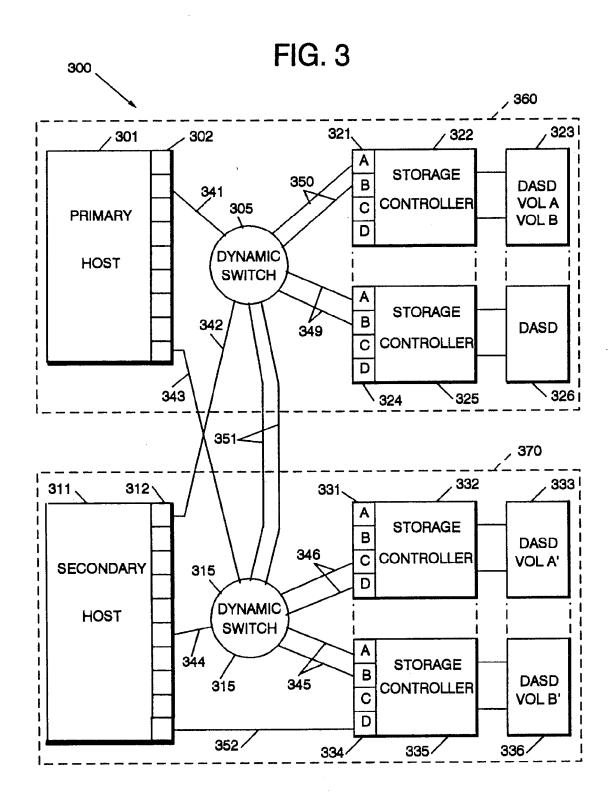


FIG. 1
PRIOR ART

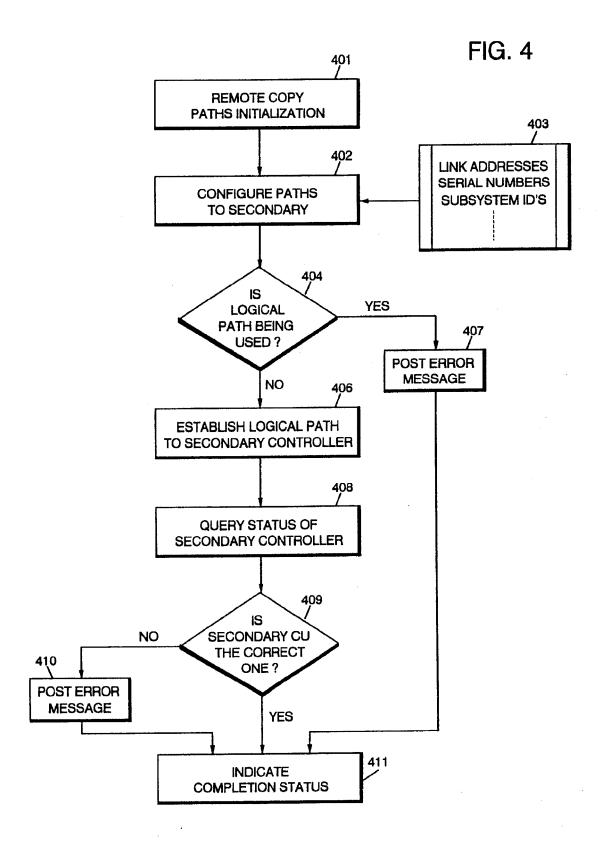














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