



US006308228B1

(12) **United States Patent**  
**Yocum et al.**

(10) **Patent No.:** **US 6,308,228 B1**  
(45) **Date of Patent:** **Oct. 23, 2001**

(54) **SYSTEM AND METHOD OF ADAPTIVE MESSAGE PIPELINING**

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(73) Assignee: **Duke University**, Durham, NC (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/197,598**

(22) Filed: **Nov. 23, 1998**

(51) **Int. Cl.**<sup>7</sup> ..... **G06F 13/00**

(52) **U.S. Cl.** ..... **710/52; 710/30; 710/131; 709/250**

(58) **Field of Search** ..... **709/250; 710/52-57, 710/29-35, 129-131**

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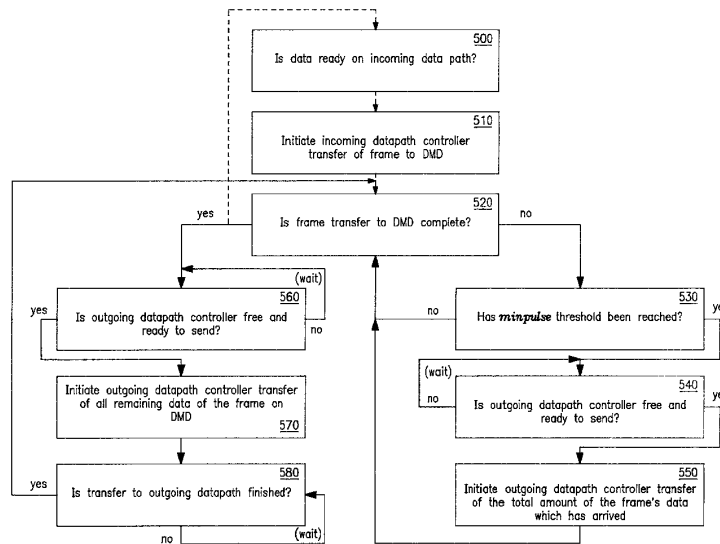
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(57) **ABSTRACT**

A system and method termed adaptive message pipelining in which two or more data paths are joined by a data movement device. The data movement device has a data path controller for each incoming and outgoing data path. Adaptive message pipelining is a dynamic policy which adjusts between a store and forward data delivery method and a cut through delivery of data based upon network and I/O bus contention in order to decrease latency and maximize system throughput.

**15 Claims, 8 Drawing Sheets**



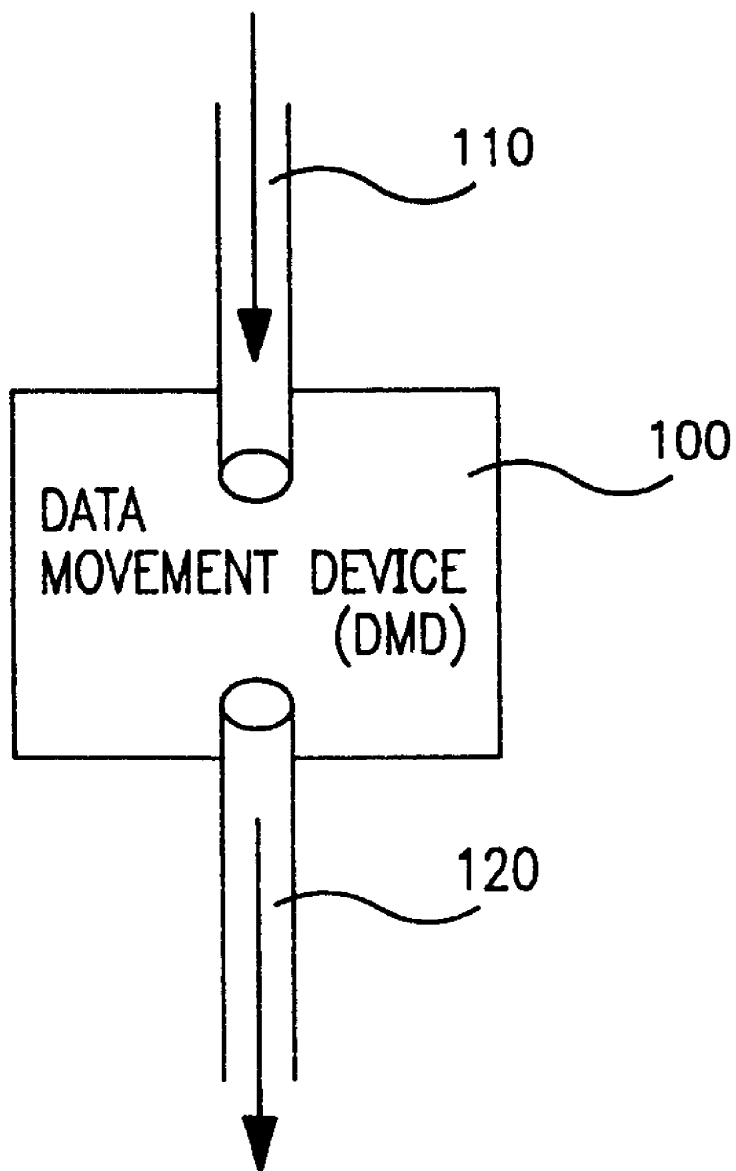


FIG. 1

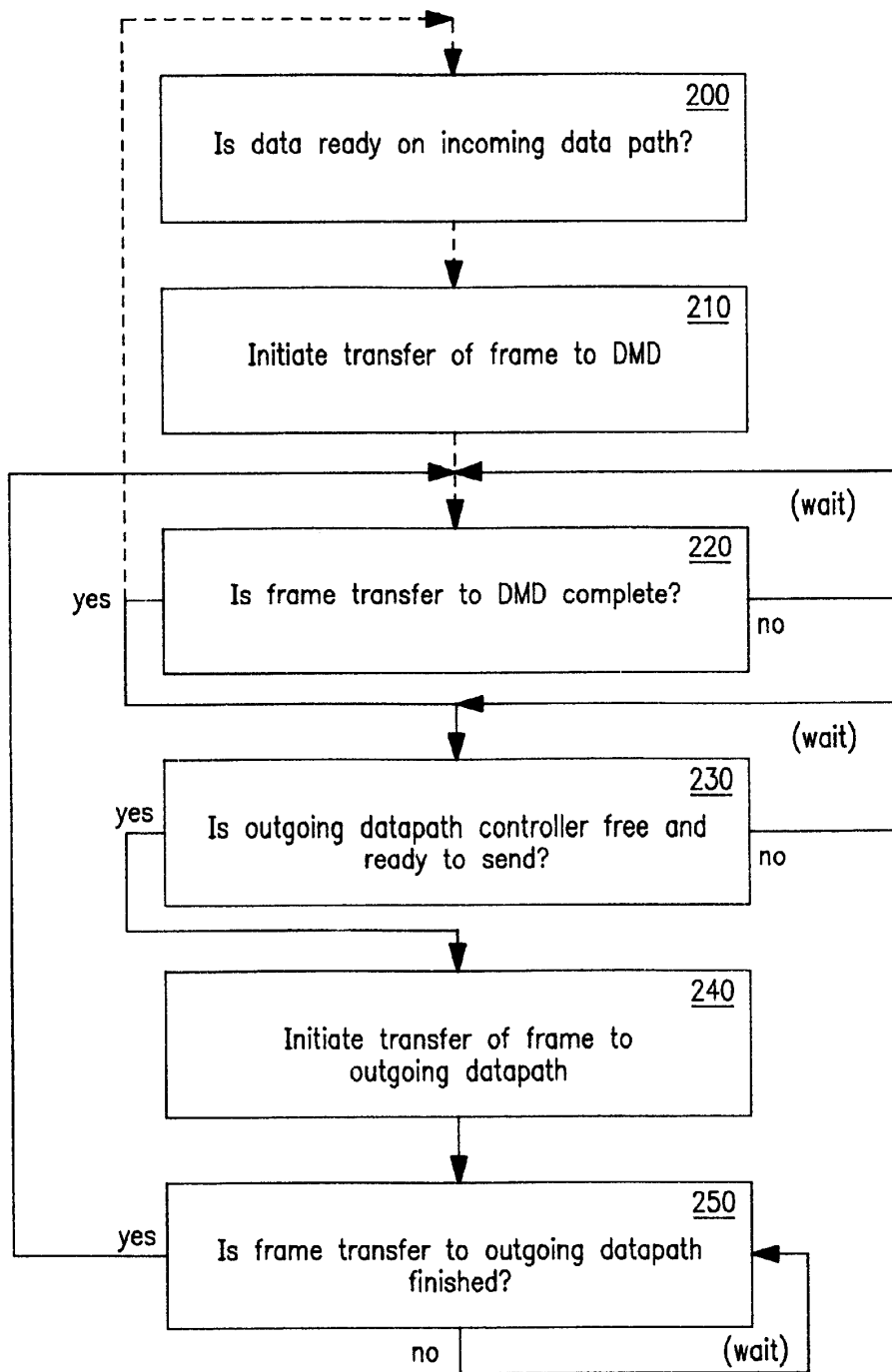


FIG. 2  
PRIOR ART

FIG. 3  
PRIOR ART

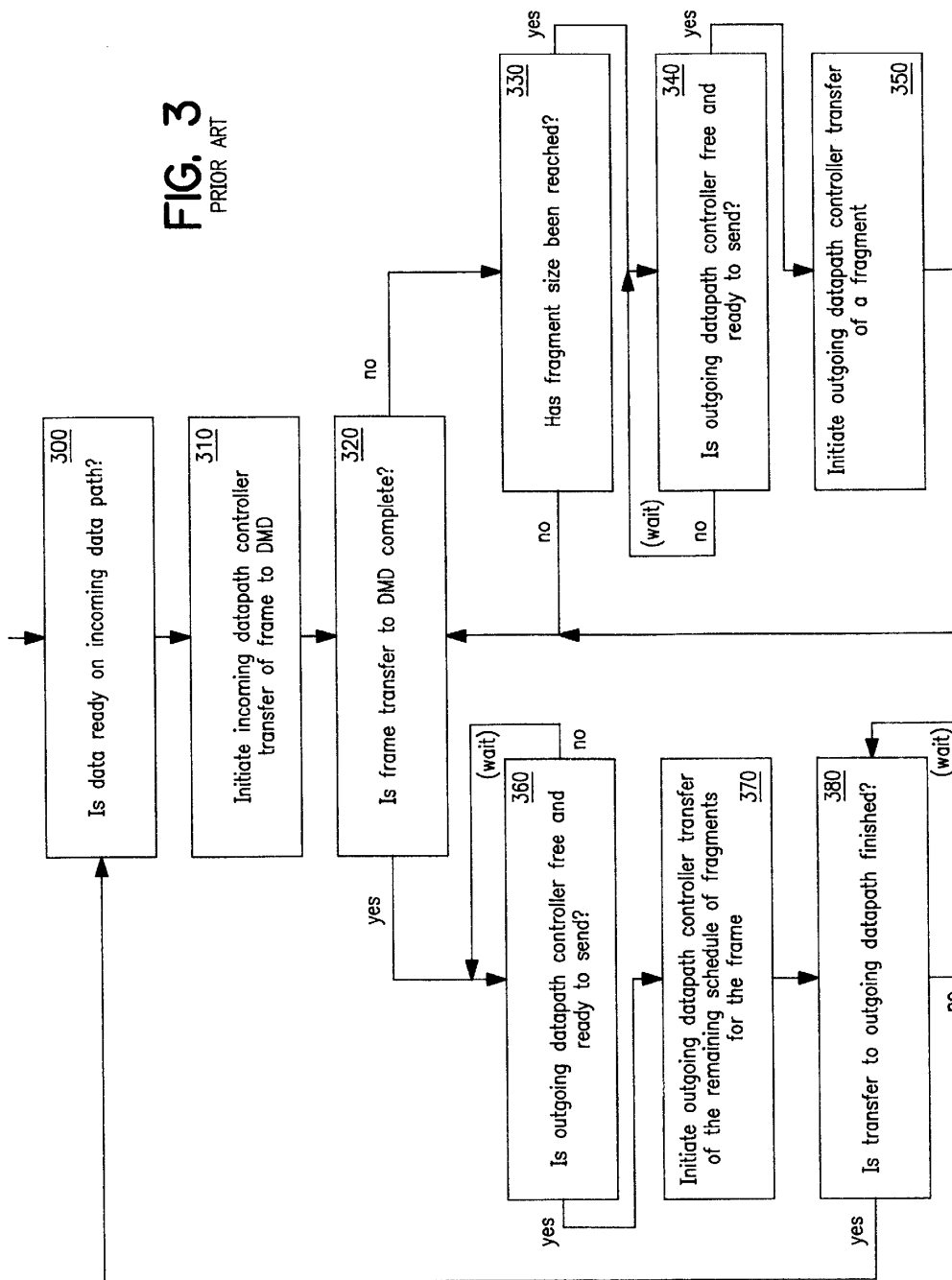
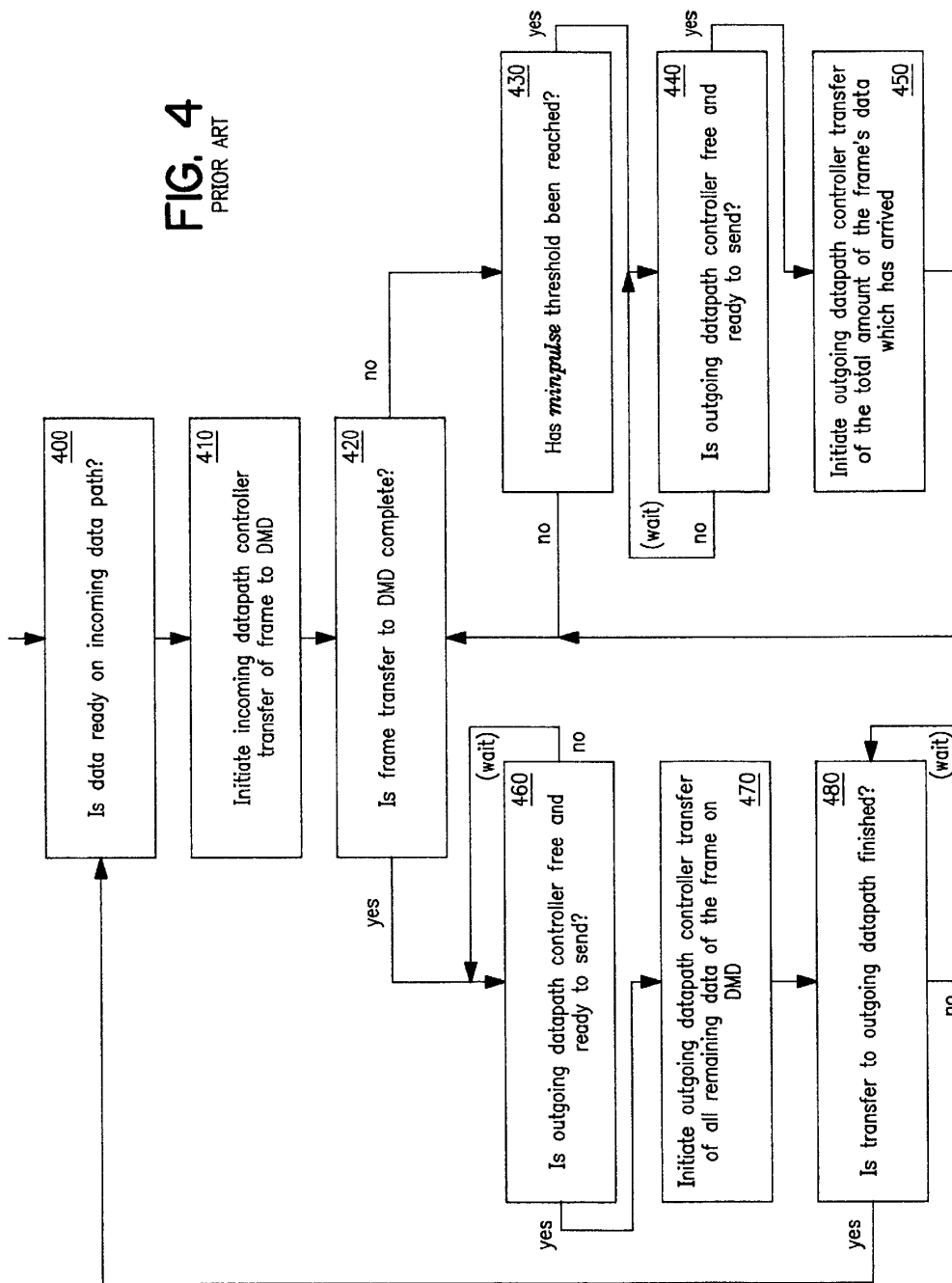


FIG. 4  
PRIOR ART



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