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**Luhmann et al.**

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(54) **METHOD AND APPARATUS FOR TRANSMITTING PACKETS ONTO A NETWORK**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 802 days.

6,301,258	B1	*	10/2001	Katseff et al.	370/412
6,349,097	B1	*	2/2002	Smith	370/390
6,381,661	B1	*	4/2002	Messerly et al.	710/63
6,430,628	B1		8/2002	Connor	
6,510,145	B1	*	1/2003	Kim et al.	370/329
6,597,662	B1	*	7/2003	Kumar et al.	370/236
6,614,756	B1	*	9/2003	Morgenstern et al.	370/230
6,647,438	B1		11/2003	McVay et al.	
6,721,835	B1		4/2004	Connor	
2002/0083189	A1		6/2002	Connor	
2002/0144004	A1		10/2002	Gaur et al.	
2002/0194332	A1		12/2002	Connor	
2003/0058852	A1		3/2003	Luhmann et al.	
2003/0065735	A1		4/2003	Connor	

\* cited by examiner

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(51) **Int. Cl.**<sup>7</sup> ..... **H04L 1/00**

(52) **U.S. Cl.** ..... **370/230; 370/236.1**

(58) **Field of Search** ..... **370/230, 236, 370/236.1, 329, 390, 250, 412; 710/63**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,784,358	A	*	7/1998	Smith et al.	370/236.1
5,978,359	A	*	11/1999	Caldara et al.	370/236
6,185,229	B1	*	2/2001	Obikane et al.	370/537

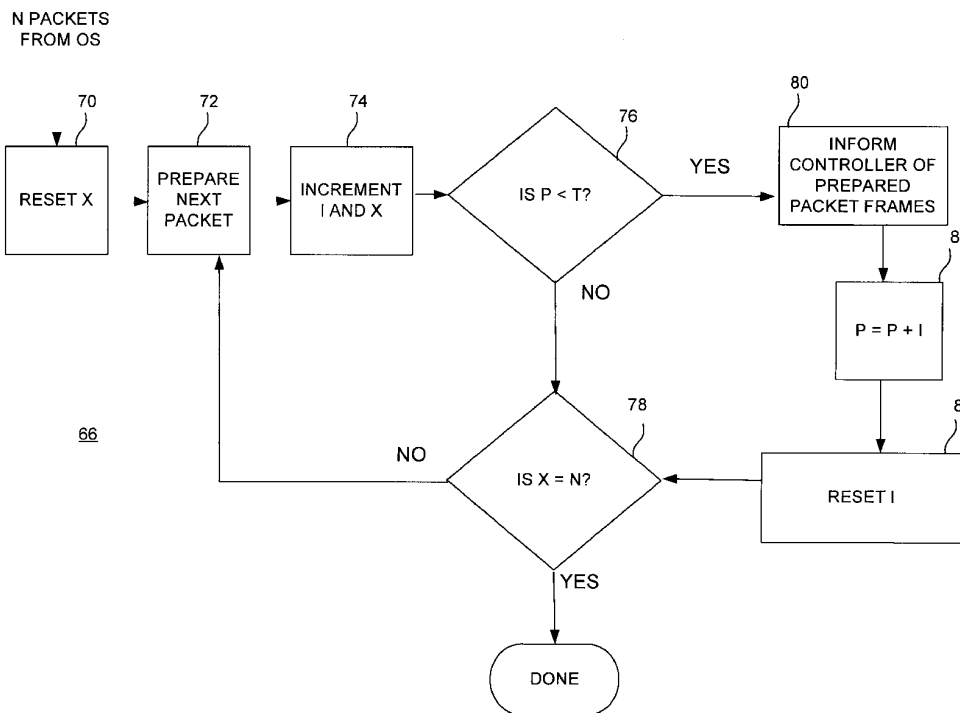
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(57) **ABSTRACT**

A network driver for transmitting packets. For a particular embodiment the driver receives an indication that a packet is available for transmission and monitors a packet pending transmission status of a network controller. The driver then indicates to the network controller that the packet is available for transmission only when the pending transmission status in one particular embodiment reaches a threshold value. Thus the driver determines how many packets to provide a network controller based on the amount of packets still waiting to be transmitted by the controller.

**36 Claims, 6 Drawing Sheets**



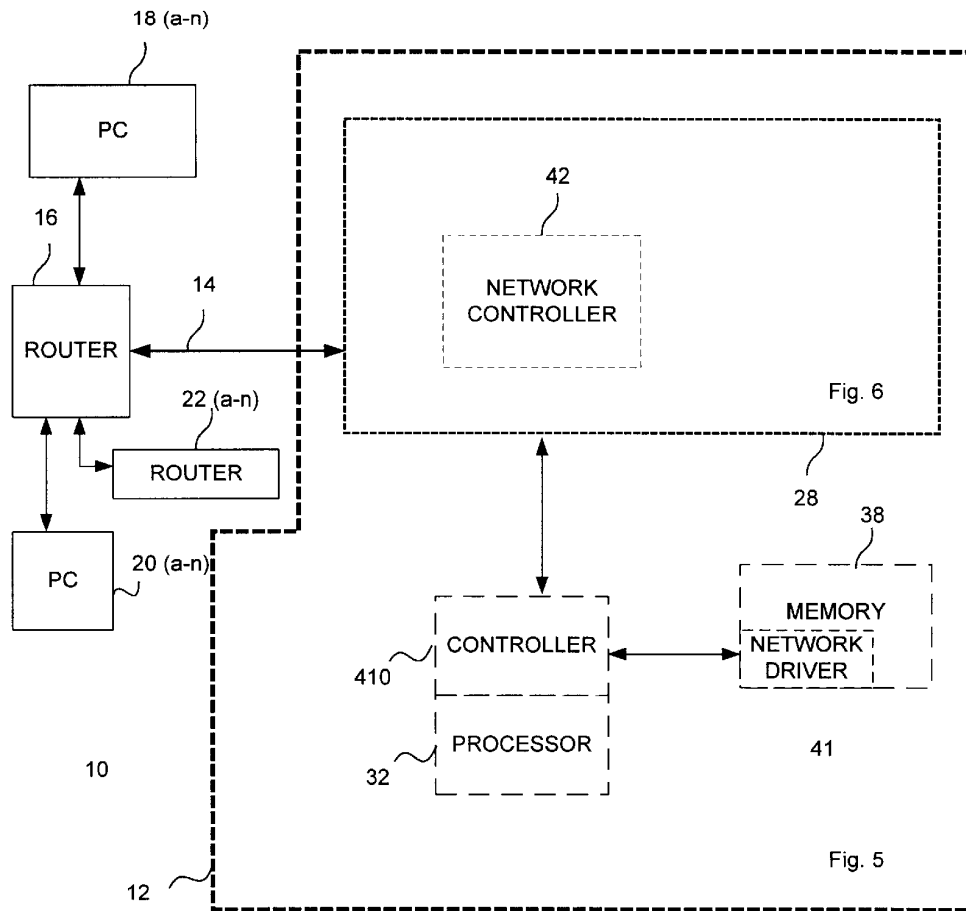


Fig. 1

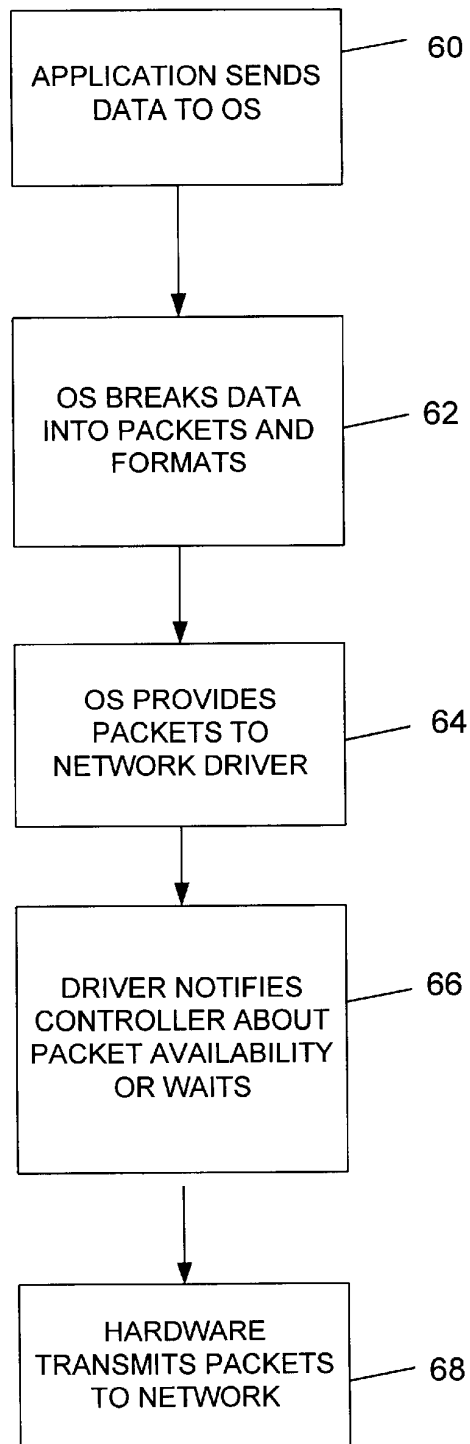


Fig. 2

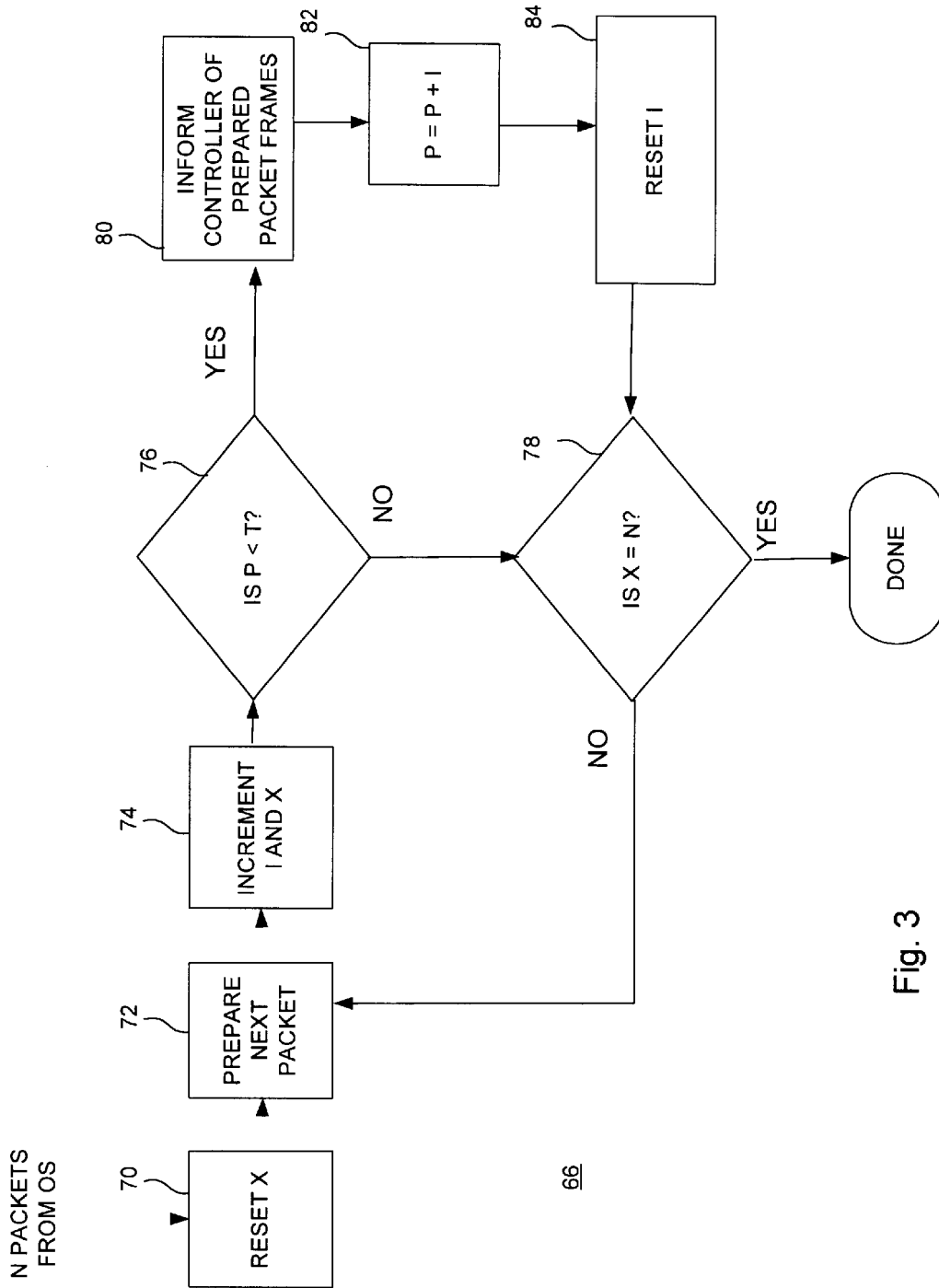


Fig. 3

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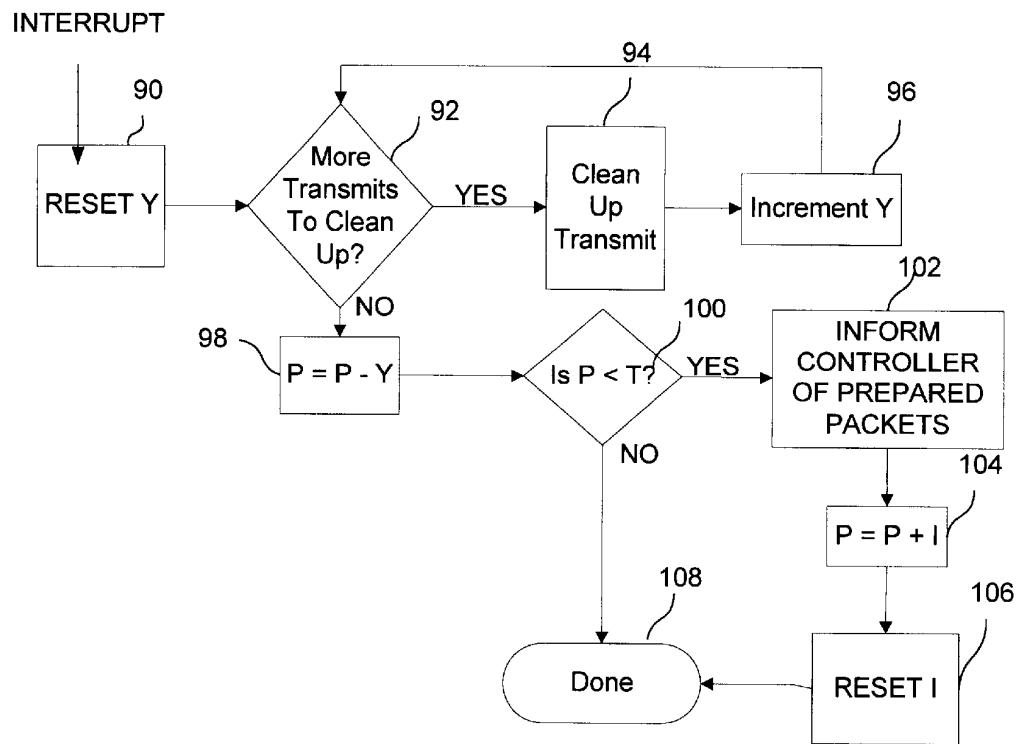


Fig. 4

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