



United States Patent [19]

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Shaffer et al.

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[54] **SYSTEM FOR PROVIDING ENHANCED SECURITY FOR TRANSACTIONS TRANSMITTED THROUGH A DISTRIBUTED NETWORK**

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[21] Appl. No.: **09/052,812**

[22] Filed: **Mar. 31, 1998**

[51] **Int. Cl.⁷** **H04J 3/24; H04L 9/00**

[52] **U.S. Cl.** **713/201; 370/94.1**

[58] **Field of Search** **713/201, 200; 370/235**

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,500,989 2/1985 Dahod 370/431

4,888,800	12/1989	Marshall et al.	380/281
4,965,827	10/1990	McDonald	380/30
5,151,899	9/1992	Thomas et al.	370/394
5,475,763	12/1995	Kaufman et al.	380/30
5,594,869	1/1997	Hawe et al.	713/201
5,699,512	12/1997	Moriyasu et al.	713/201
5,784,462	7/1998	Tomida et al.	380/270
5,909,437	6/1999	Rhodes et al.	713/2

OTHER PUBLICATIONS

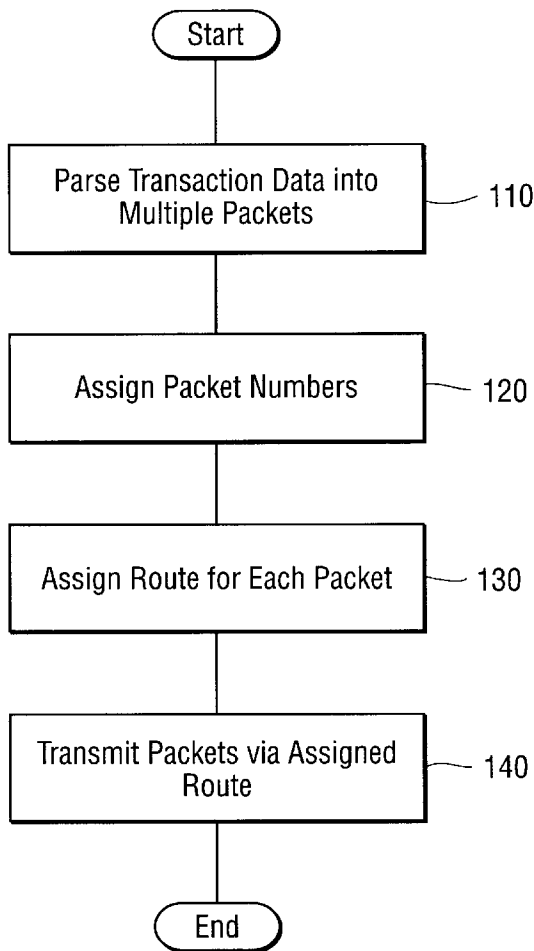
Giles, Roosevelt. Internet Security (Firewalls that Offer both Security and Flexibility). Network VAR. pp. 4-5, Mar. 1997.

Primary Examiner—Ly V. Hua

[57] **ABSTRACT**

Transactions sent from a source node to a destination node interconnected by a distributed network are protected from interception by a third party by passing the transaction data into several packets which are renumbered as a pseudo-random sequence and sent along different routes from the source node to the destination node.

10 Claims, 6 Drawing Sheets



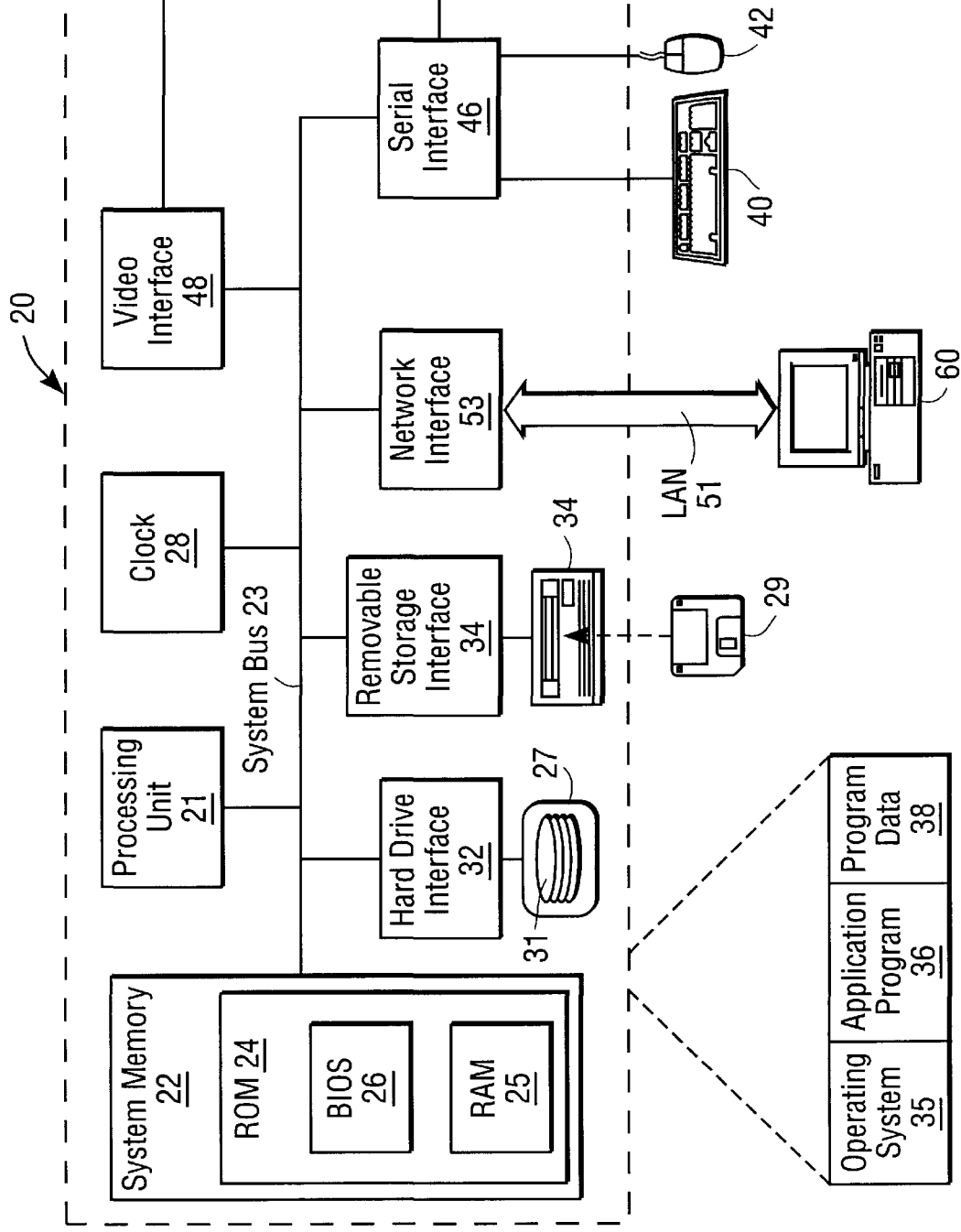


FIG. 1A

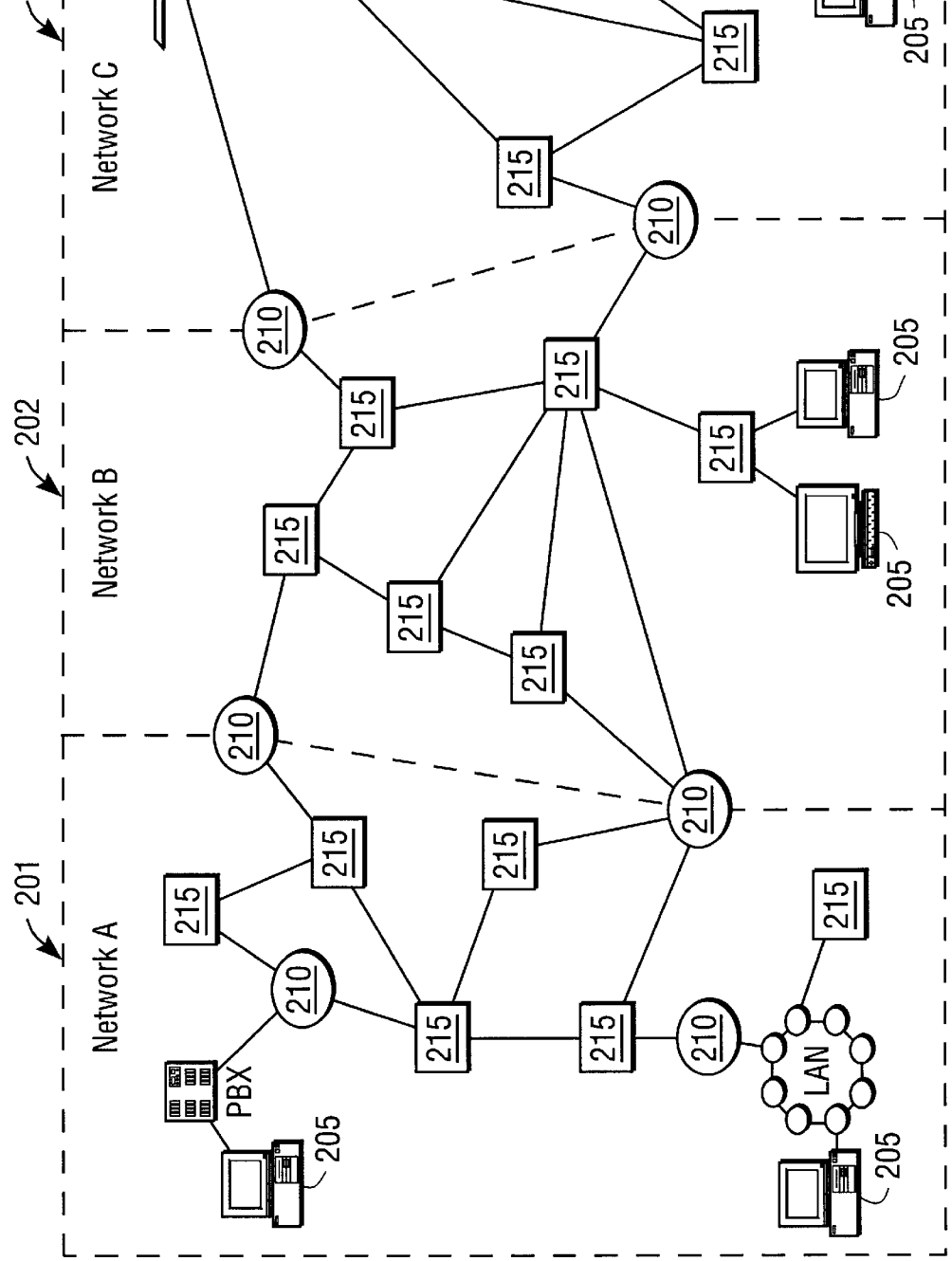


FIG. 1B

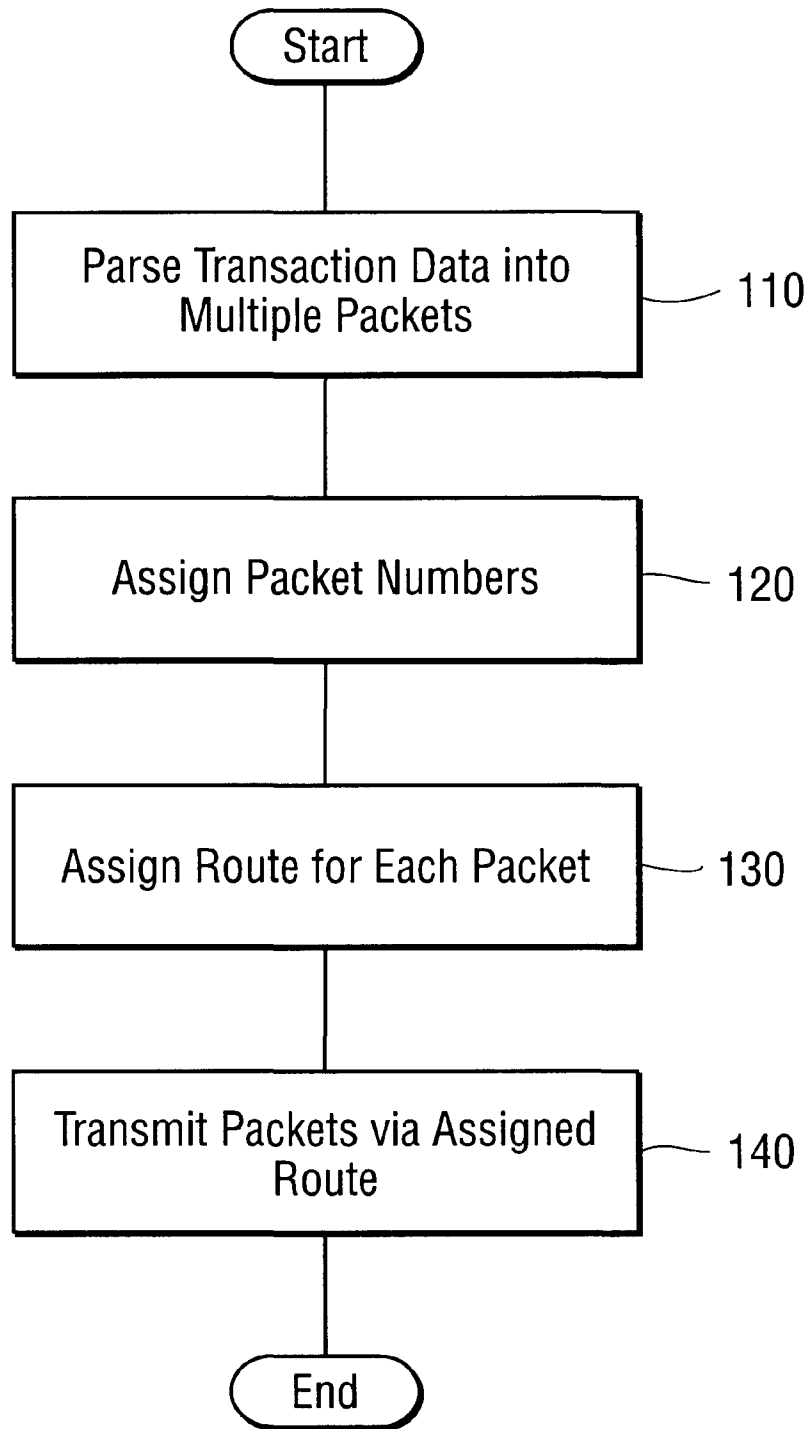
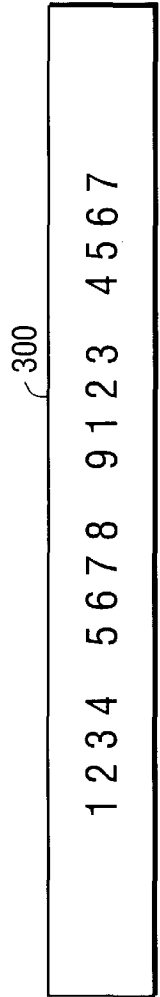
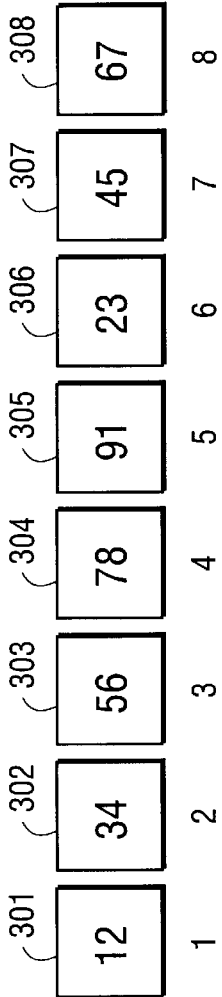


FIG. 2

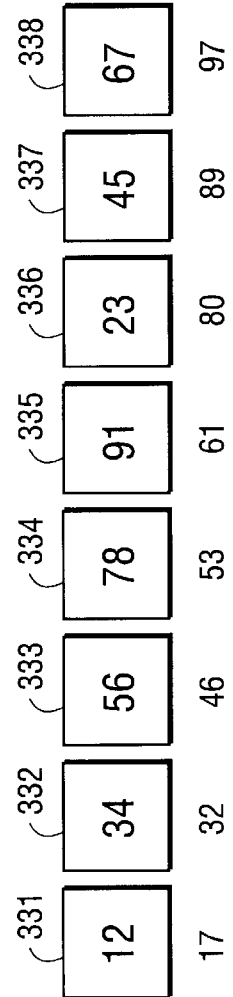
Transaction Data



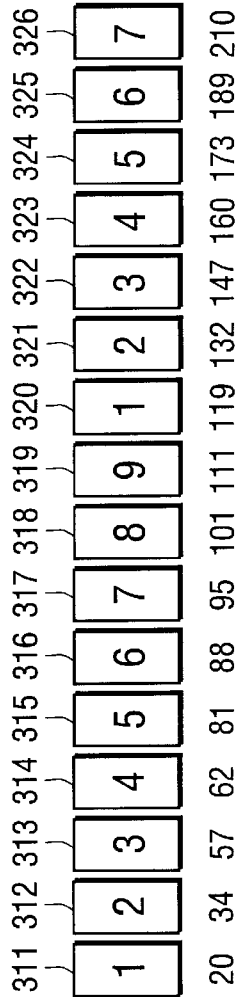
Packet Number



Packet Number



Packet Number



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