



# United States Patent [19]

[11] **Patent Number:** **6,122,743**

**Shaffer et al.**

[45] **Date of Patent:** **Sep. 19, 2000**

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

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

[75] Inventors: **Shmuel Shaffer**, Palo Alto; **William Joseph Beyda**, Cupertino, both of Calif.

[73] Assignee: **Siemens Information and Communication Networks, Inc.**, Boca Raton, Fla.

### OTHER PUBLICATIONS

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

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

*Primary Examiner*—Ly V. Hua

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

### [57] ABSTRACT

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

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.

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

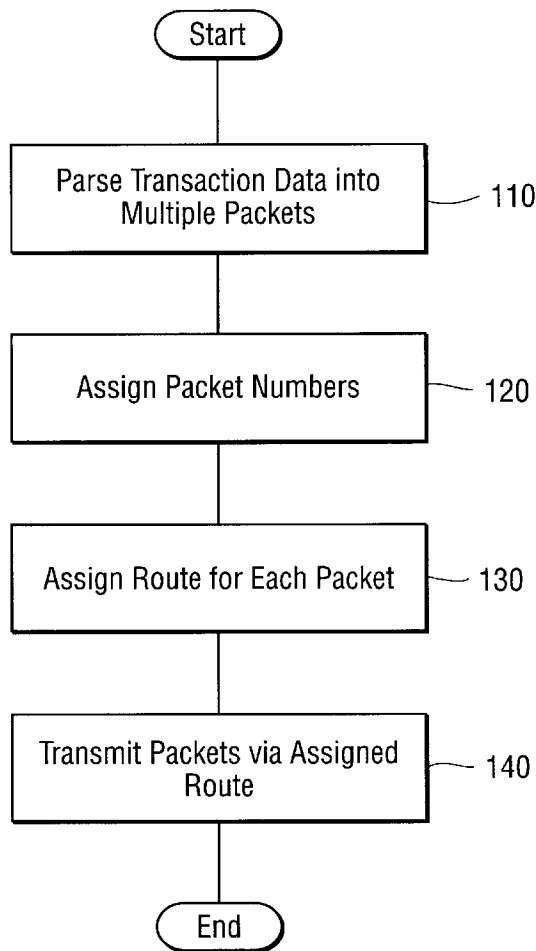
[58] **Field of Search** ..... **713/201, 200; 370/235**

### [56] References Cited

#### U.S. PATENT DOCUMENTS

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

**10 Claims, 6 Drawing Sheets**



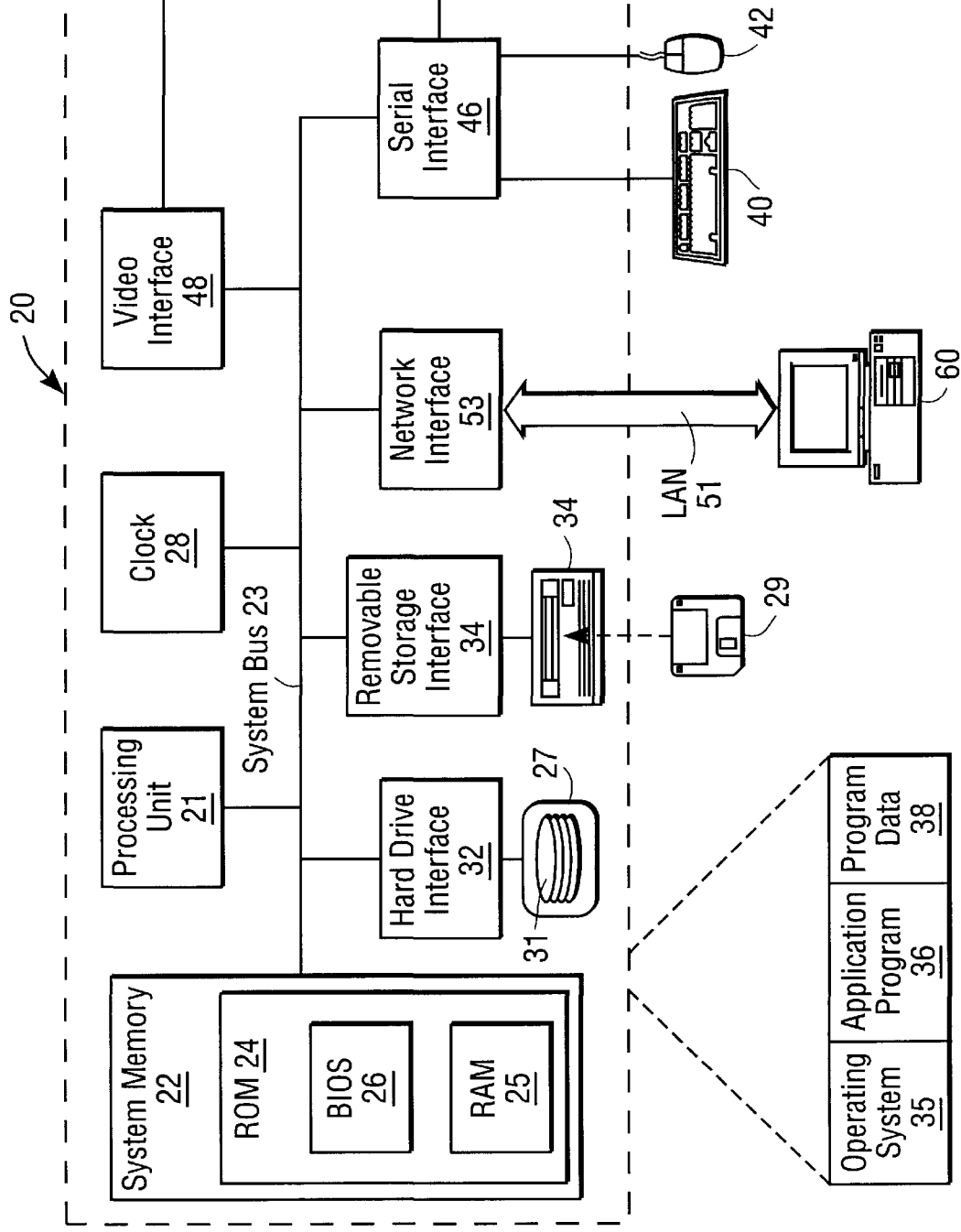


FIG. 1A

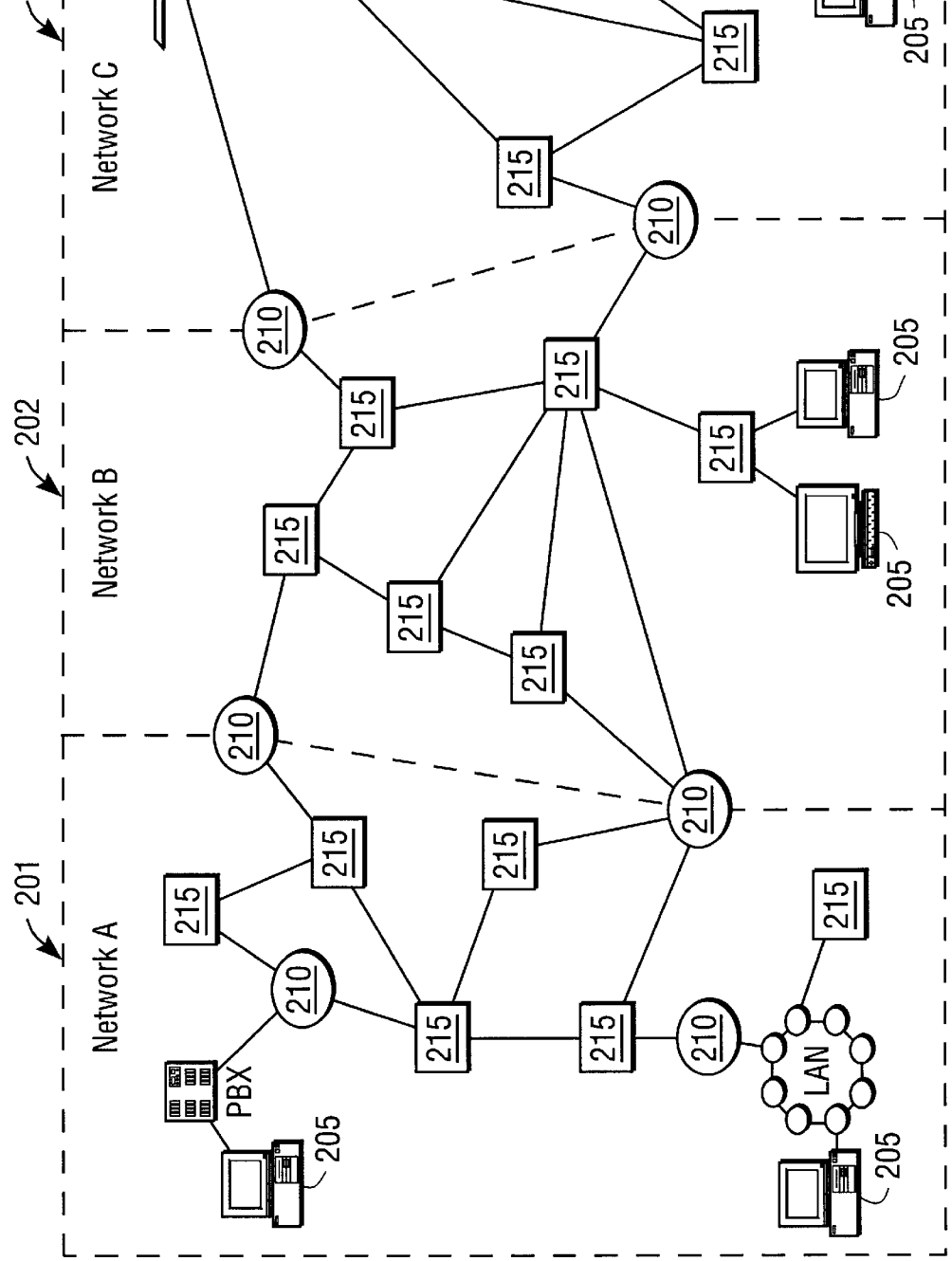


FIG. 1B

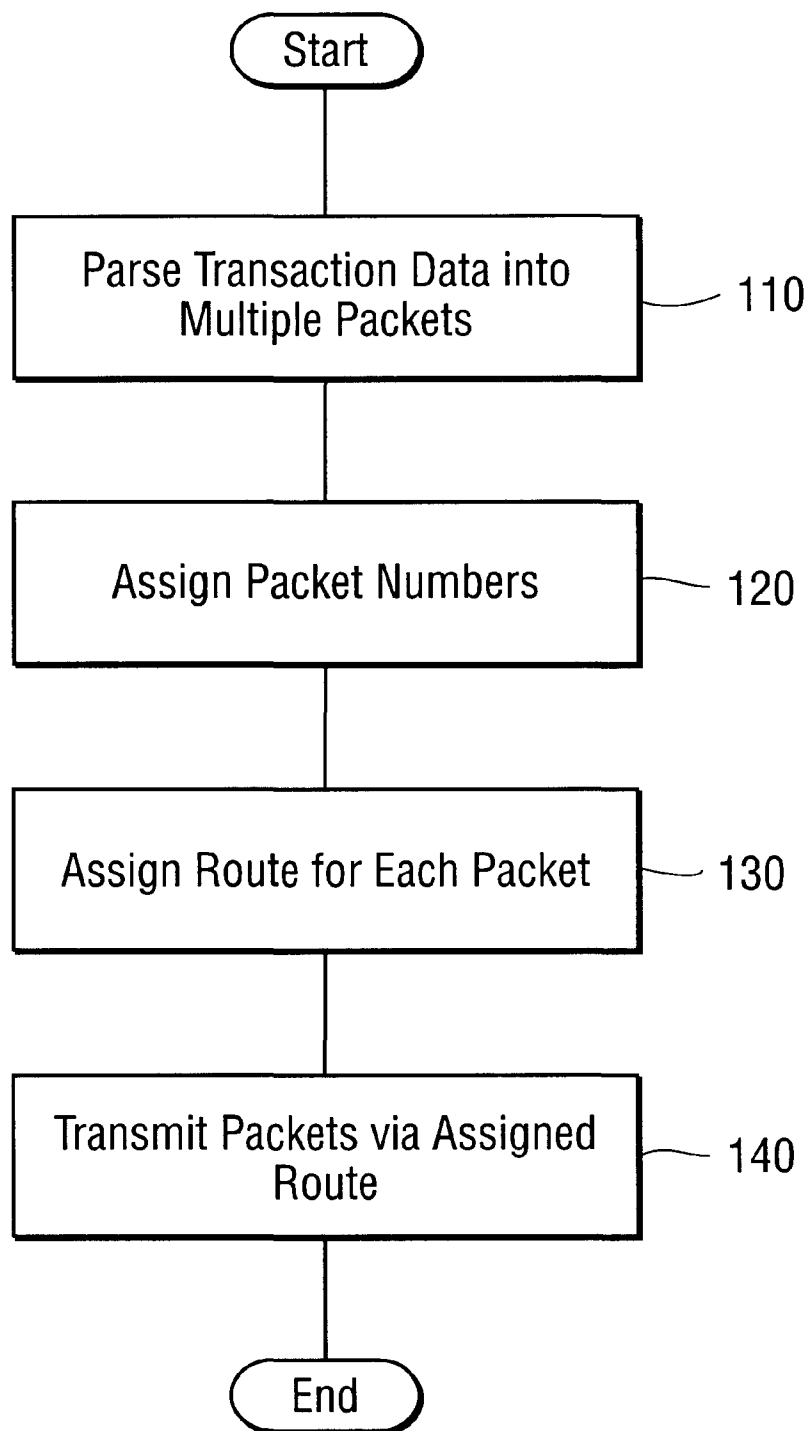
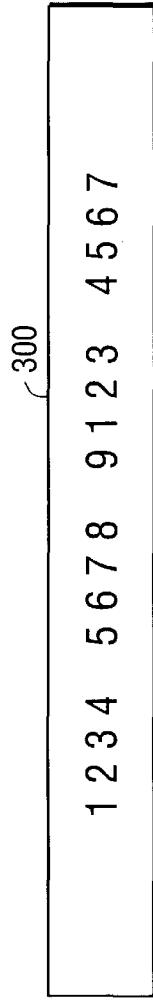
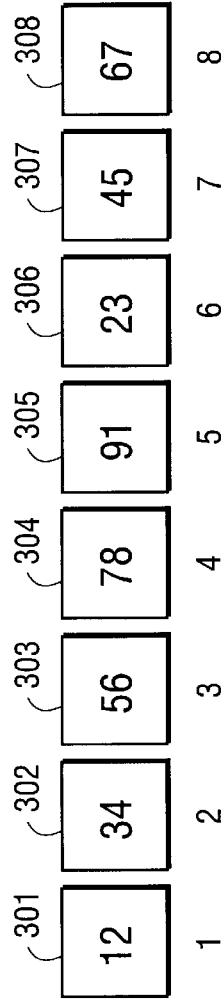


FIG. 2

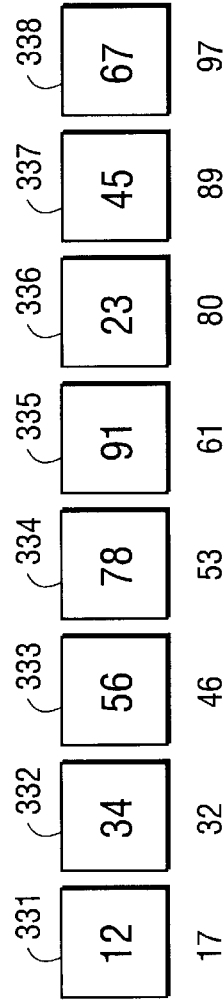
Transaction Data



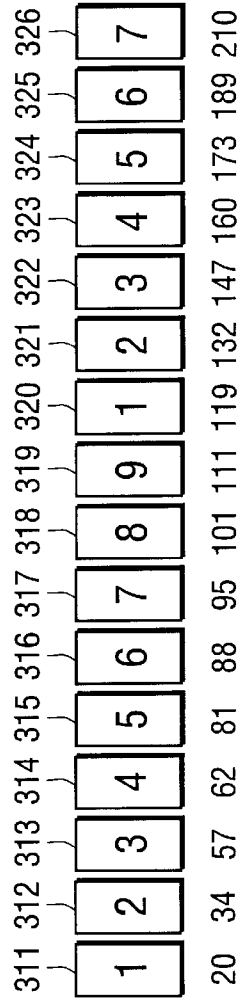
Packet Number



Packet Number



Packet Number



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.