



US006028848A

United States Patent [19]

[11] Patent Number: **6,028,848**

Bhatia et al.

[45] Date of Patent: **Feb. 22, 2000**

[54] **APPARATUS AND METHODS FOR USE THEREIN FOR AN ISDN LAN MODEM UTILIZING INTERNAL DNS AND DHCP SERVERS FOR TRANSPARENT TRANSLATION OF LOCAL HOST NAMES TO IP ADDRESSES**

U.S. application No. 08/938,572, Bhatia et al., filed Sep. 26, 1997.

U.S. application No. 08/852,659, Best et al., May 7, 1997.

U.S. application No. 08/852,656, Best et al., May 7, 1997.

K. Egevang et al., "The IP Network Address Translator (NAT)", *Internic Network Working Group*, Request for Comments No. 1631, May 1994, pp. 1-9.

[75] Inventors: **Rajiv Bhatia**, Marlboro; **Tayseer M. Elhindi**, Ocean, both of N.J.; **Siuling C. Zhang**, Stony Brook, N.Y.

Primary Examiner—Melvin Marcelo
Attorney, Agent, or Firm—Michaelson & Wallace

[73] Assignee: **3Com Corporation**, Santa Clara, Calif.

[57] ABSTRACT

[21] Appl. No.: **08/938,373**

Apparatus, and accompanying methods for use therein, for an ISDN LAN modem (300) (and various aspects thereof) that is particularly, though not exclusively, suited for small user environments and which contains an internal ISDN router (305) having a self-contained network hub (340) for inter-connecting multiple network devices, such as workstations (10), to each other through a local area network (LAN) and for permitting each of those devices to each gain access through the router to any one of a number of different remote networks. Advantageously, to facilitate and simplify its configuration, the LAN modem automatically adapts itself to a current network environment of a workstation connected thereto, via the LAN, and then communicates with that workstation through a browser executing thereat to obtain configuration information from a user situated at the workstation. Additionally, the LAN modem, through use of a multi-tiered routing hierarchy including both destination- and source-based routing, accommodates several modalities of network communication not heretofore possible in a conventional router. Specifically, several different workstations can simultaneously communicate through the LAN modem with a common remote network (60) and share a single user account at a corresponding network service provider.

[22] Filed: **Sep. 26, 1997**

[51] Int. Cl.⁷ **H04L 12/66**

[52] U.S. Cl. **370/257; 370/401; 370/475**

[58] Field of Search **370/254, 255, 370/257, 401, 402, 475**

[56] References Cited

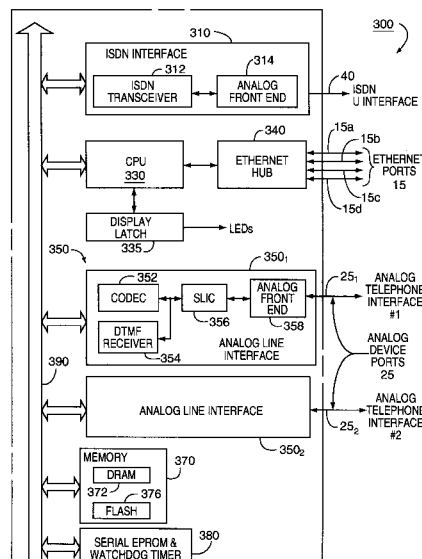
U.S. PATENT DOCUMENTS

5,790,548 8/1998 Sistanizadeh et al. 370/401
5,918,016 6/1999 Brewer et al. 395/200.5

OTHER PUBLICATIONS

- U.S. application No. 08/938,573, Bhatia et al., filed Sep. 26, 1997.
- U.S. application No. 08/938,370, Bhatia et al., filed Sep. 26, 1997.
- U.S. application No. 08/938,369, Bhatia et al., filed Sep. 26, 1997.
- U.S. application No. 08/938,852, Bhatia et al., filed Sep. 26, 1997.
- U.S. application No. 08/938,851, Bhatia et al., filed Sep. 26, 1997.
- U.S. application No. 08/938,568, Bhatia et al., filed Sep. 26, 1997.

28 Claims, 41 Drawing Sheets



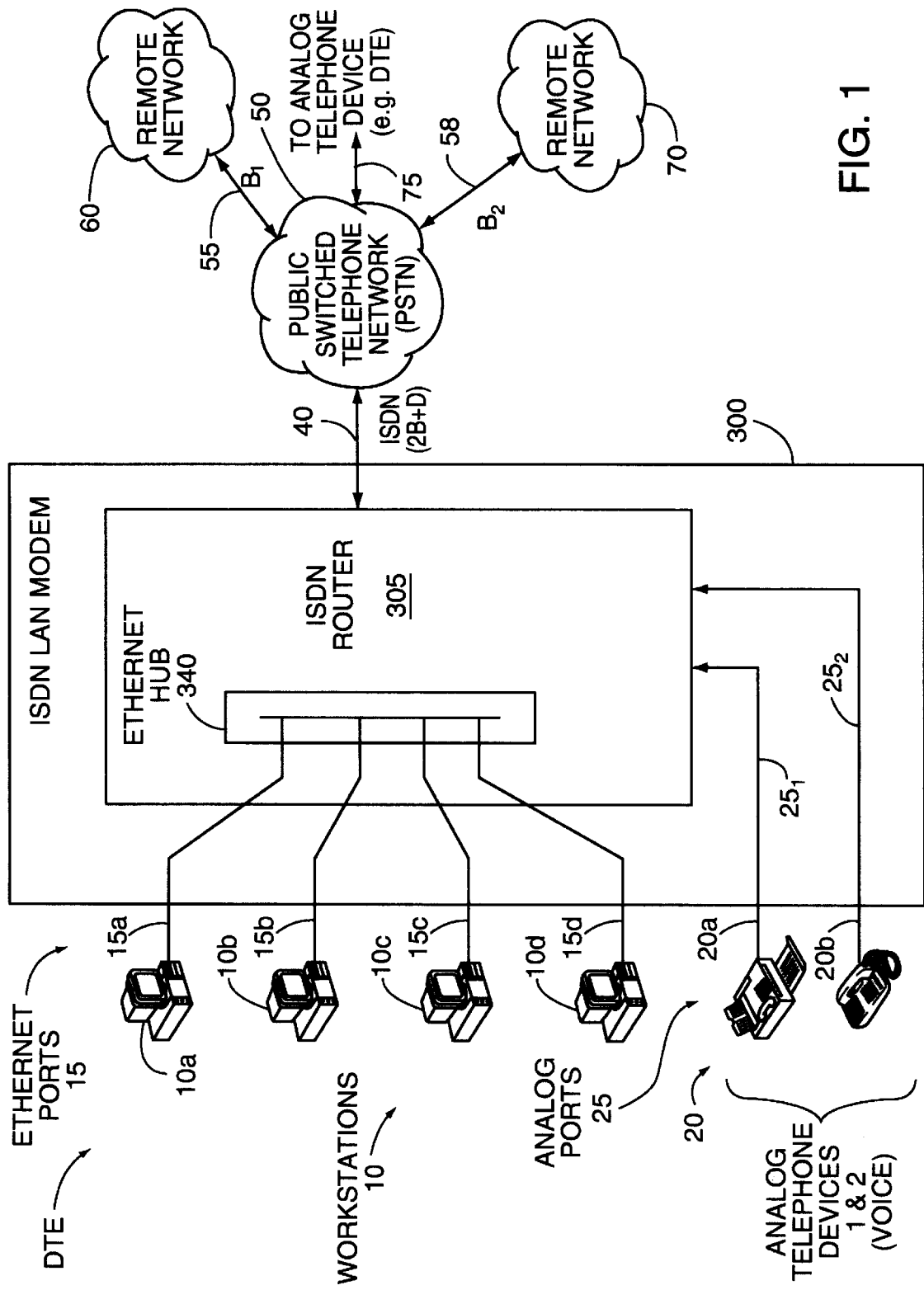


FIG. 1

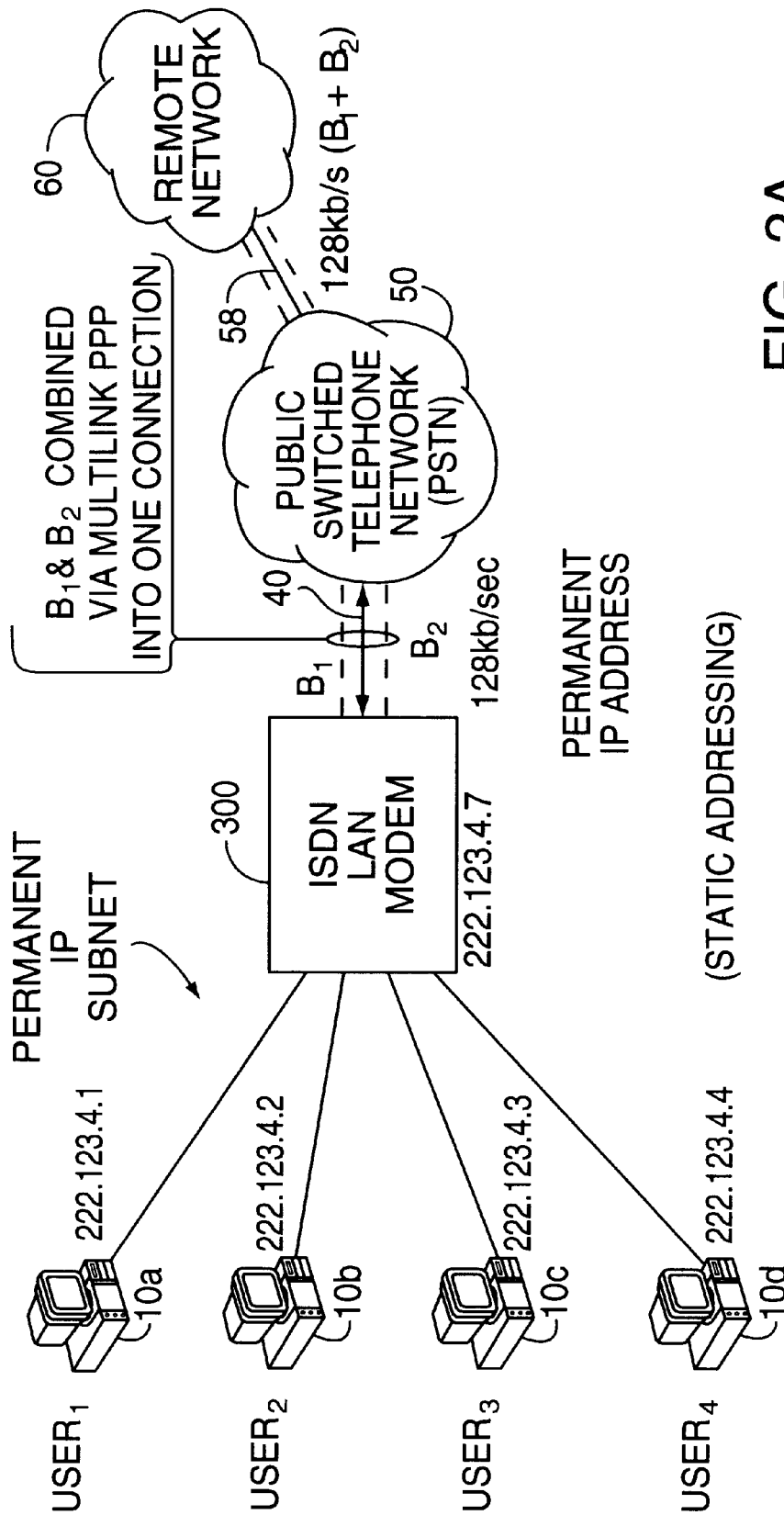


FIG. 2A

TRUE ROUTING MODE

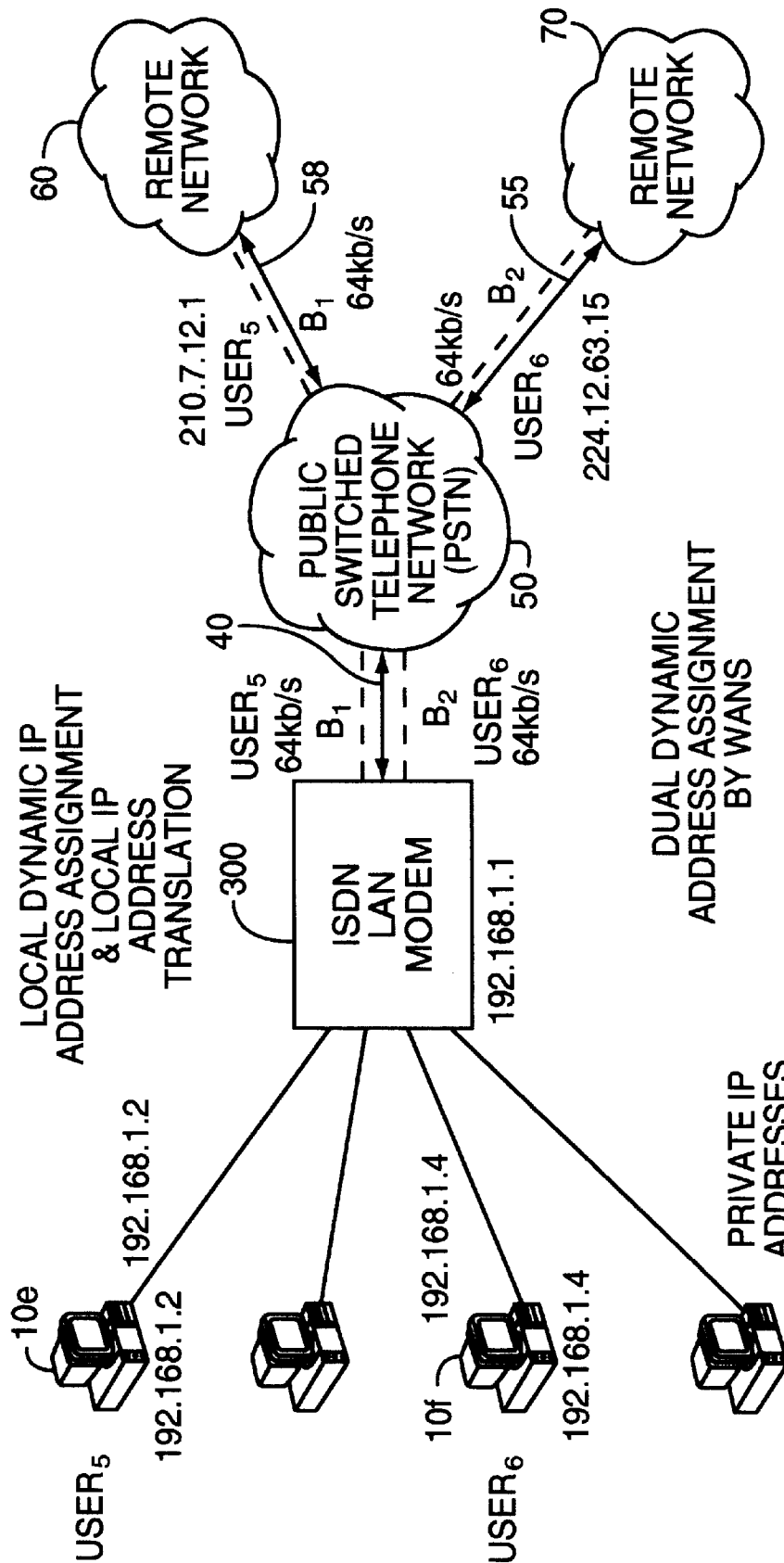


FIG. 2B

TWO SIMULTANEOUS
REMOTE CONNECTIONS
TO DIFFERENT DESTINATIONS

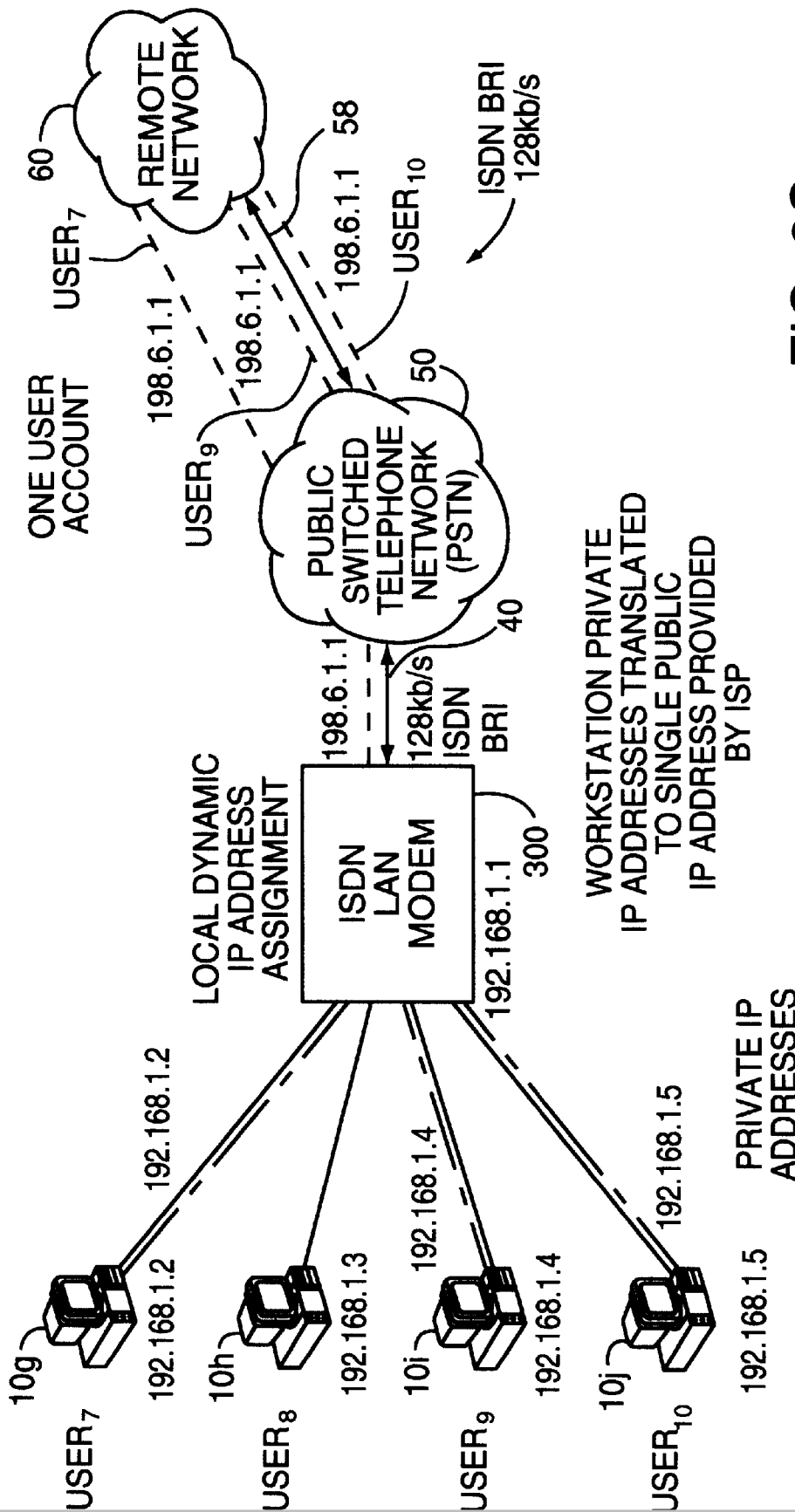


FIG. 2C

SIMULTANEOUS CONNECTIONS THROUGH SHARED ACCOUNT

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.