

- [54] **METHOD OF HIERARCHICAL LDAP SEARCHING WITH RELATIONAL TABLES**
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- [51] **Int. Cl.⁷** **G06F 17/30**
- [52] **U.S. Cl.** **707/3; 707/101**
- [58] **Field of Search** **707/1-3, 100, 707/101, 200, 205**

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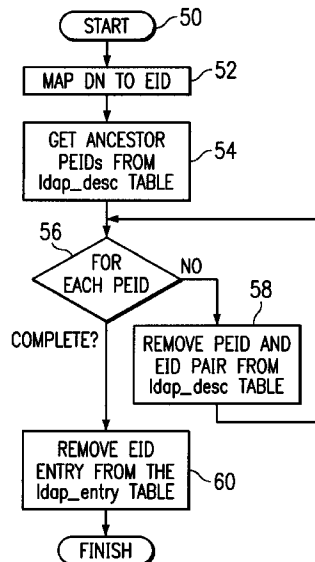
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[57] **ABSTRACT**

A method of hierarchical LDAP searching in an LDAP directory service having a relational database management system (DBMS) as a backing store. According to the invention, entries in a naming hierarchy are mapped into first and second relational tables: a parent table, and a descendant table. These tables are used to "filter" lists of entries returned from a search to ensure that only entries within a given search scope are retained for evaluation. Thus, for example, the parent table is used during an LDAP one level search, and the descendant table is used during an LDAP subtree search. In either case, use of the parent or descendant table obviates recursive queries through the naming directory.

27 Claims, 5 Drawing Sheets



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FIG. 1
(PRIOR ART)

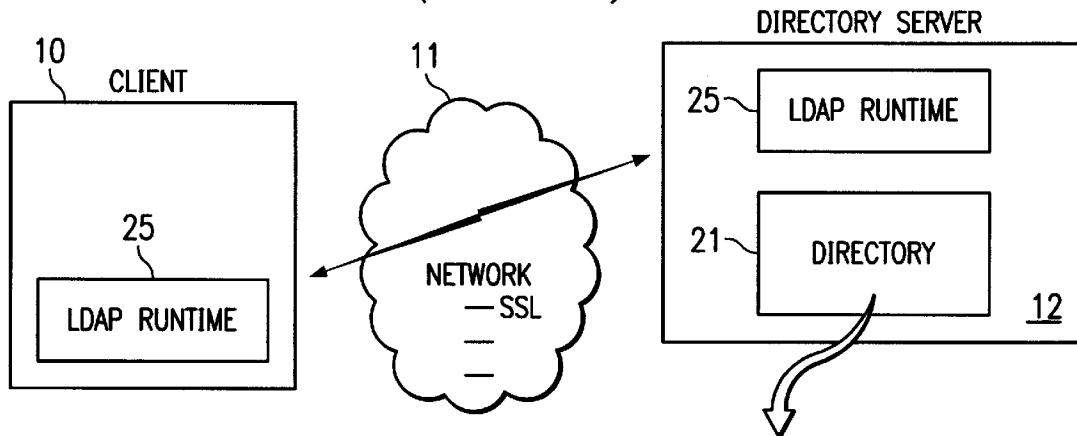


FIG. 2
(PRIOR ART)

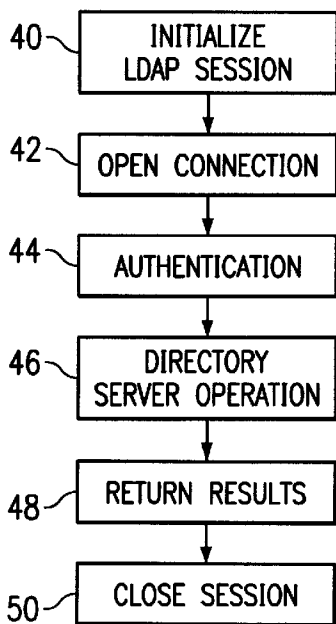
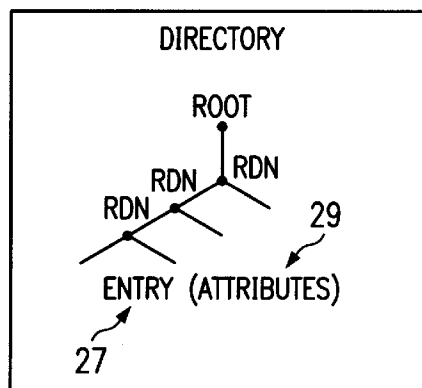


FIG. 3
(PRIOR ART)

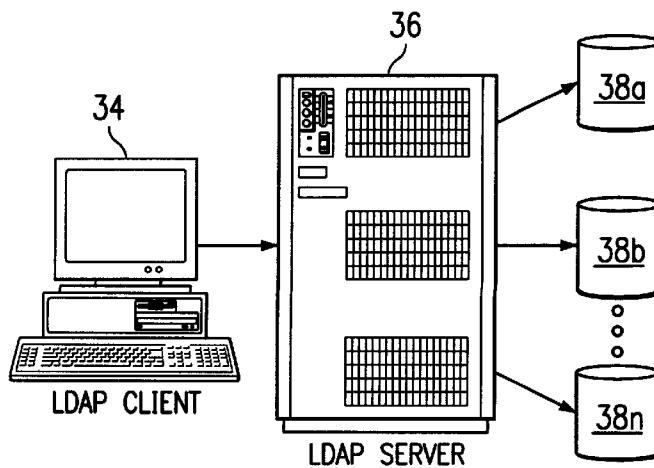


FIG. 4A

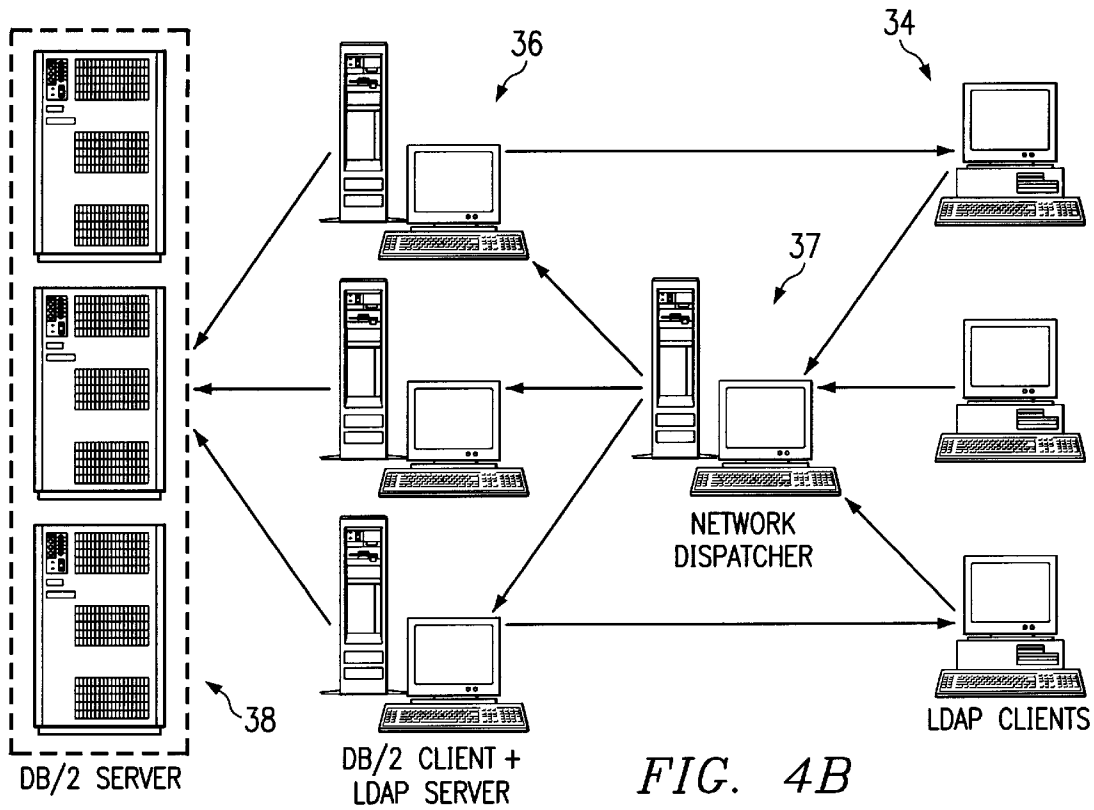


FIG. 4B

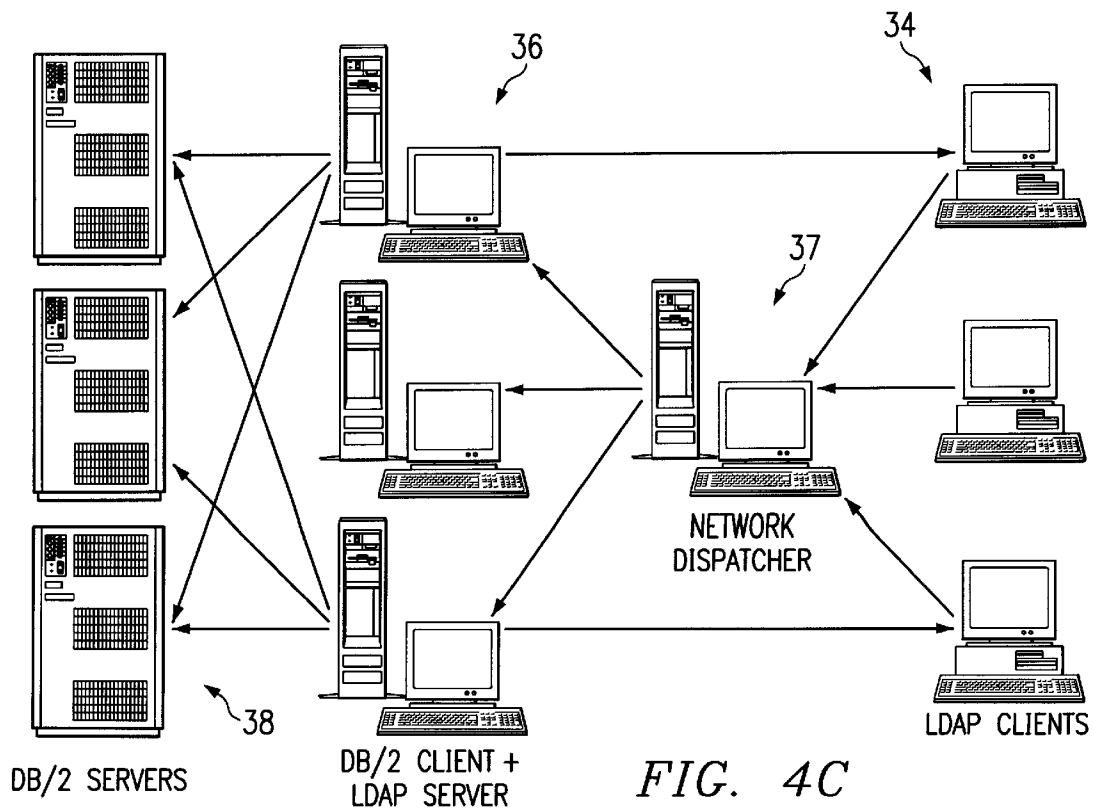
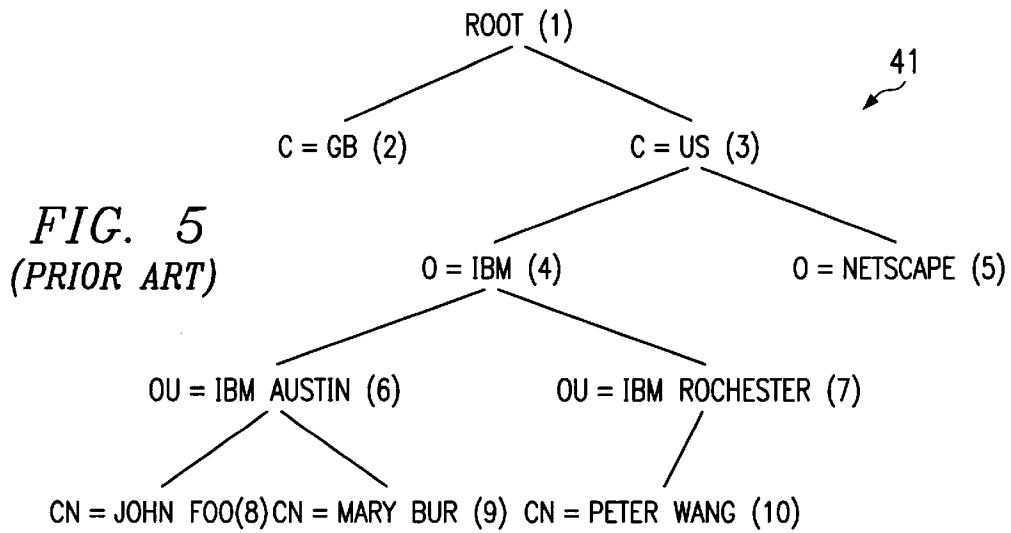


FIG. 4C



43

| PEID | EID |
|------|-----|
| 1 | 2 |
| 1 | 3 |
| 3 | 4 |
| 3 | 5 |
| 4 | 6 |
| 4 | 7 |
| 6 | 8 |
| 6 | 9 |
| 7 | 10 |

FIG. 6A

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| AEID | DEID |
|------|------|
| 1 | 2 |
| 1 | 3 |
| 1 | 4 |
| 1 | 5 |
| 1 | 6 |
| 1 | 7 |
| 1 | 8 |
| 1 | 9 |
| 1 | 10 |
| 3 | 4 |
| 3 | 5 |
| 3 | 6 |
| 3 | 7 |
| 3 | 8 |
| 3 | 9 |
| 3 | 10 |
| 4 | 6 |
| 4 | 7 |
| 4 | 8 |
| 4 | 9 |
| 4 | 10 |
| 6 | 8 |
| 6 | 9 |
| 7 | 10 |

FIG. 6B

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