National Aeronautics and Space Administration

technology solution

Information Technology and Software

Selective Access and Editing in a Database

Flexible database accessibility

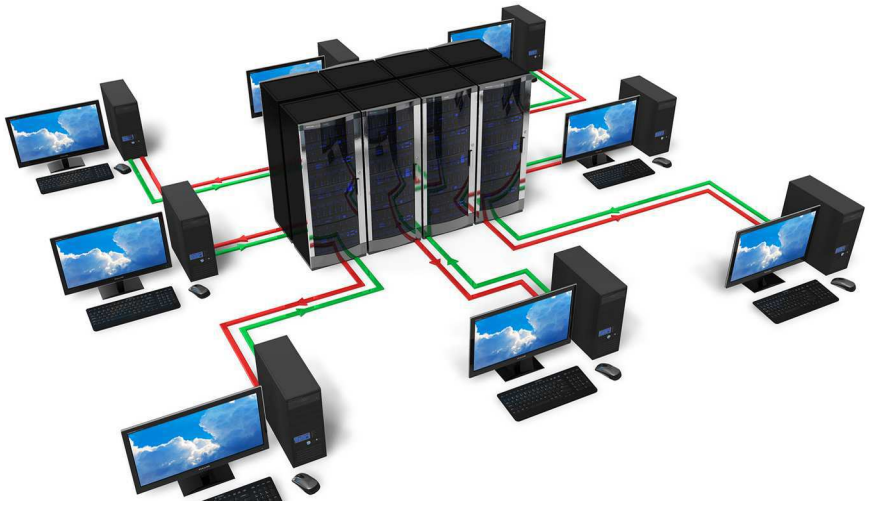
NASA has developed a method and system that provides selective access to different portions of a database by different subgroups of database users. In this system two or more members of a given access subgroup can edit simultaneously a document accessible to each member. This database system provides selective access to different portions of the database for different groups of users, where the different groups may have overlapping access group memberships. When N users are involved, up to 2N -1 distinguishable access subgroups in a group space can be formed, and no two access subgroups can have the same members. This system is very flexible and allows for change in definition of the portions of the database accessible by a specified access group. Provisions of selective access to the database allow restriction of user access to the information contained in different portions of the database based upon need to know or another suitable authorization scheme.

BENEFITS

- Selective access to different portions of a database
- Allows simultaneous editing
- Flexible development environment
- Secure
- Data Integrity
- Restricting Unauthorized Access

THE TECHNOLOGY

A complex project has many tasks and sub-tasks, many phases and many collaborators, and will often have an associated database with many users, each of which has a limited need to know that does not extend to all information in the database. This invention relates to selective access to simultaneous editing of different portions of a database. It provides selective access to as many as 2N-1 (or 2N) mutually exclusive portions of a database by different subgroups of N users. One or more members of an access subgroup can edit a document or other information collection, to which the members have access simultaneously. In this system the database receives information from one or more information sources and is queried by a plurality of users. The database permits selective access of a given user to different portions of the database, depending upon the users identity and access permissions. Optionally, members of the same access subgroup can be assigned different numerical priorities in a queue so that, as between first and second users in the subgroup, draft editing of a document by the first user will subsequently be reviewed, declined, or either partly entered or wholly entered by the second user. User access to different portions of the database is initially determined when a user account is set up. User access can be subsequently changed according to the circumstances.



Network and internet communication concept

APPLICATIONS

The technology has several potential applications:

- Database Management
- Education
- Telecommunications
- Health Care Information Systems
- Banking
- Human Resources
- E-Commerce

PUBLICATIONS

Patent No: 7,698,274

More Information

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