

Abstract**A Storage Network Structure based on the Peterson Graph and Data Read-Write****Method thereof**

The present invention provides a storage network structure based on Peterson graph and data read-write method thereof. The aforementioned storage network structure consists of a primary distributed storage network and a Peterson graph-based storage network, in which, the said primary distributed storage network may be a cluster distributed storage network or a DHT (Distributed Hash Table)-based peer-to-peer storage network consisting of n nodes; and the said Peterson graph-based storage network is formed by 10 nodes selected from aforementioned storage node set according to policies. The Peterson graph-based storage network structure and data read-write method thereof may provide the different reliability classes for the applications by combining peer-to-peer based distributed network storage with Peterson graph-based network storage, solve the problem of a large quantity of data migrating by utilizing the better media data migrating non-movable property from the Peterson graph-based network storage, and screen the single failure of the cluster storage structure and avoid performance degradation of peer-to-peer wide area storage by combining with the availability and robustness of Distributed Hash Table.

Figure 1