DHT based peer to peer network system is a general range of query scheme. These schemes can support the range of query without modifying the underlying DHTs and they cannot guarantee to return the query results with bounded delay. The query delay in these schemes depends on both the scale of the system and the size of the query space. This paper, proposed Armada, an efficient range of query processing scheme to support the delay-bounded single-attribute and multiple-attribute range queries called Armada. Describe the order-preserving naming algorithms for assigning adjoining ObjectIDs to objects with close attribute values. The design of forwarding tree is to efficiently match the search paths of range queries to the underlying DHT topology. Based on the tree, two query processing algorithms are proposed respectively single-attribute and multiple attribute range queries within a bounded delay. Analytical and Simulation results shows that Armada is an effective general range query
scheme on constant-degree DHTs and can return the query results within 2 logN hops in a P2P system with N peers, regardless of the queried range or the size of query space.

Reference


Index Terms

Computer Science Networks

Key words

Distributed hash tables Peer to peer Forward routing
tree