

ABSTRACT

The present application provides a distributed database architecture system, a metadata node, and a method thereof. The system can be used in a cloud service and comprises a plurality of computing nodes, a plurality of storage nodes and a metadata node. The metadata node records a correspondence between each data block among data blocks obtained by dividing each data stream and a storage location for storing the data block, wherein the storage locations for the data blocks of each data stream are located in one or more storage nodes; the metadata node records two or more references for a first data stream to be read by two or more computing nodes, wherein each reference is used by each of the two or more computing nodes to acquire the correspondences of the first data stream to read the first data stream. The plurality of computing nodes read each data stream from the plurality of storage nodes or store each data stream to the plurality of storage nodes on the basis of the correspondences. The plurality of storage nodes store one or more data blocks of each data stream in a corresponding storage location, respectively.