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ABSTRACT

METADATA LOCK MANAGEMENT IN ADVANCED FUNCTION N-WAY SHARED STORAGE CONTROLLER SYSTEMS

A storage controller in a network comprises an I/O performing component (204), a component (210) to assign ownership of metadata for data to an owner storage controller node, a lock manager (212) to control locking of metadata during I/O, and a messaging component (214) to pass messages between storage controller nodes to request metadata state, grant locks, request release of locks, and signal lock release. The I/O is performed on data whose metadata is owned by any owner storage controller node, subject to compliance with metadata lock protocols controlled by the owner storage controller, and any copy of the data held from time to time is maintained in a coherency relation with the data.

Fig. 2.