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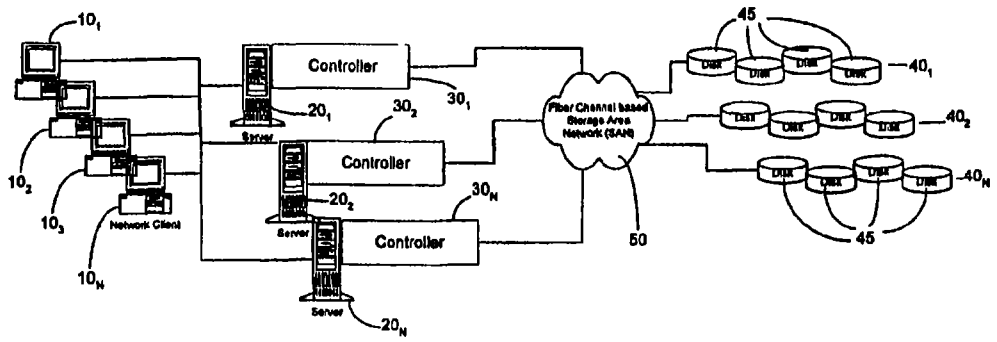
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(54) Title: METHODS AND SYSTEMS FOR IMPLEMENTING SHARED DISK ARRAY MANAGEMENT FUNCTIONS



(57) Abstract

Multiple Array Management Functions (80) included in controller (30) are connected to multiple redundancy groups (40) over a storage area network (SAN), such as a fiber-channel based SAN (50). The multiple Array Management Functions share management responsibility of the redundancy groups, each of which typically includes multiple resources spread over multiple disks (45). The AMFs provide concurrent access to the redundancy groups for associated host systems. When a host requests an AMF to perform an operation on a resource, the AMF synchronizes with the other AMFs sharing control of the redundancy group that includes the resource to be operated on, so as to obtain a lock on the resource. While performing the operation, the AMF send replication data and state information associated with the resource such that if the AMF fails, any of the other AMFs are able to complete the operation and maintain data reliability and coherency.

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