

DESIGN OF ADAPTIVE STORAGE NETWORKS USING GENETIC ALGORITHMS

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ABSTRACT

The objective of this paper is to develop a fault-tolerant storage network capable of automatically managing and optimizing its reliability by monitoring and responding to failure indicators. This system is a fully automated self-healing network that is aware of its own behavior and failure profile, and is thus capable of proactively managing its own allocated storage units to minimize downtime and loss of information due to failure. We apply the latest research in disk failure model as a basis to implement new techniques for the construction of this fault-tolerant storage system.

KEYWORDS: Cloud Computing, Distributed Systems, Fault Tolerance, Operating Systems, Performance