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RELIABILITY MODELLING OF INTERNET DATA CENTER

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Abstract

This paper deals with the mathematically study of an Internet data center, which consists of a database main server, connected with a redundant server. By observing the different possibilities the system, it has been analyses to evaluate the various reliability characteristics of system. The system can fail completely due to database and redundant server failure, router failure and switch failure. Failure time is assumed to follow negative exponential distribution while repair follow general time distribution. By incorporating waiting time to repair the varies measures of reliability have been discussed such as reliability of system mean time to system failure steady state transition probabilities cost analyses. In last some particular cases are also highlighted and conclusion has been drowned.

Key Words: Database server failure, L2; L3 Switch, Router failure, Redundant server failure etc.