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**A
Project Report
on**

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ABSTRACT

Network design and modeling, is the most important phase of computer communication. Each network is designed with the intent of keeping it robust and tolerant to errors. The highest number of data losses occurs with the failure of nodes. A node failure can be due to a large number of reasons including power failure, shutdown, and virus or hacking. Hence all network designs have the three scenarios; Best, Average and Worst. This brings forward the question of recovery from failure. This involves recovering data, addresses and routing information.

The project involves the design and development of a system that works based on the information available in the neighboring nodes to reconstruct the routing information in form of table, algorithms used or data if available. The algorithm used is based on one assumption that the network can form a tree after the failure of a node. This assumption can be extended for any network of any number of computers. The rerouting methodology uses IP addresses for the implementation. This project is an attempt to increase the response capabilities and reduce the time required to recover of a network in case of a node failure in general.