

ABSTRACT

A computer network is a combination of several separate computers that can be connected to each other. Computer networks are divided into several types, namely Local Area Network (LAN), Metropolitan Area Network (MAN), and Wide Area Network (WAN). Computer networks are very useful to help users to share information and facilitate matters of exchanging interests involving communication devices.

To connect computer networks through the Routing process, where the computer network is given a path to connect to each other using the IP address that already exists on the computer. Routing is very important on computer networks as a determinant of the fastest path to reach a destination.

EIGRP (Enhanced Interior Gateway Protocol) is a routing protocol which is a dynamic routing made specifically for Cisco Routers. EIGRP will inform the routing between routers in the same autonomous system.

OSPF (Open Shortest Path First) is a routing protocol that uses the Djikstra algorithm to calculate the best path for packets to pass when sending data. Just like EIGRP, OSPF also organizes routing information between routers in the same autonomous system.

Telkom University Dormitory is a temporary residence for students who are just starting their studies at Telkom University. This dormitory will be a place for students to learn about lectures for the first year. A computer network that aims to create a computer network that can be used properly and comfortably by dormitory residents.

This research was conducted to design a computer network at the Telkom University dormitory using the EIGRP and OSPF routing protocols. By using Cisco Packet Tracer in planning computer network design, it is hoped that it can help writers to make computer network planning.

Keywords: *Computer Networks, EIGRP, OSPF*