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Abstract Details

Title: Review Paper on Open Shortage Path First (OSPF) Protocol in Network

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Abstract: The OSPF is an open standard protocol that is most popularly used in modern networks. OSPF is a large and complex protocol, and as such we only provide an overview of some properties of the protocol. The purpose of any routing protocol is to efficiently distribute dynamic topological information among its participants to facilitate routing calculations upon which packet forwarding decisions are then based. Due to the shortage of RIP protocol, OSPF protocol is used in large network. It is a dynamic routing protocol used in Internet Protocol networks. Specifically, it is a link-state routing protocol and falls into the group of interior gateway protocols, operating within a single Autonomous system. OSPF was designed to support Variable-length subnet masking (VLSM) or Classless Inter-Domain Routing (CIDR) addressing models. OSPF detects changes in the topology, such as link failures, very quickly and converges on a new loop-free routing structure within seconds. There are two types of routing-Link State routing and Distance Vector routing. Dijkstra is based on Link State routing. In Link State routing each router keeps track of its incident links and cost on the link, whether the link is up or down. Each router broadcasts the link state to give every router a complete view of the graph. Each router runs Dijkstra's algorithm to compute the shortest paths and construct the forwarding table. The topology of the network can be generated by collecting the OSPF messages. In this paper, we also give evaluation of OSPF routing protocols for IPv6.

Keywords: OSPF, RIP protocol, Link State Routing, Distance Vector Routing, EIGRP.