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**I. ABSTRACT**

The routing protocol enables routers to choose routes between nodes in a computer network and specifies how they communicate with each other to distribute information. Today, the routing protocol is widely applied especially in the field of transportation routing and it has many benefits, but it also brings some big problems. For example, it creates many difficulties due to the large resources it contains and the complexities encountered when routing in an urban environment. In this article, should we use routing protocols to route Intercity buses? Why or why not?" We will answer your questions.

**Key Words**

Routing Protocols, OSPF**,** IGP

**II. INTRODUCTION**

Routing Protocols are a set of rules used by routers to communicate between source and destination**.** Routing Protocols are a set of rules used by routers to communicate between source and destination. Routing protocols are of 2 types. The first routing protocol, Static routing protocols, is used when an administrator manually assigns the route from the source to the destination network. Offers greater security to the network. A static piece that ends at your service provider's exit gateway. It has the advantages of no unused bandwidth between connections and the ability to add admin-only routes. The disadvantage is that when the connection fails, the entire network is shut down, which is not possible in small networks. The second routing protocol is Dynamic routing protocols, which helps it automatically add information from connected routers to routing tables. It is a dynamic section that starts at your exit gateway and ends at an entry gateway. The advantages of dynamic routing protocol are that it is easier to configure even in larger networks and it has the ability to dynamically choose a different route in case a connection drops. Updates are shared between routers, so it consumes bandwidth, which is also its disadvantage.

**“Should we use routing protocols for routing inter-city buses? Why or why not?**

Routing protocols allow routers to dynamically learn information about remote networks and automatically add this information to their routing tables. Routing protocols determine the best routes for each network and then add them to the routing table. Routers perform traffic routing functions on the Internet; data packets are transmitted from router to router over internet networks until they reach their destination computers. In this respect, it can provide convenience especially in terms of routing intercity buses. Among the routers, dynamic routers are also best suited for intercity buses because they start at your exit gateway and end at an entry gateway. These routers provide great convenience in intercity buses in terms of creating transportation systems that provide the most advantageous journeys by using the time properly and minimizing the cost, thanks to the full-time vehicle and location information, in which extraordinary natural events such as sudden storms and earthquakes are transported collectively from one point to another. . It can prevent accidents by warning drivers about all kinds of situations such as weather conditions, traffic jams, other dangers that occur or will occur near the transportation vehicles are the routers that minimize the system and ensure maximum use of the system capacity. The routing information protocol is an IGP and describes the information a router knows about a route. Each router broadcasts its entire routing table to its nearest neighbors every 30 seconds. Routers decide where to be routed accordingly. using routers It increases efficiency by reducing the costs that people are exposed to, and increases travel options by bringing together travel information. In this area, intercity buses and other vehicles on highways, infrastructure and vehicle users Assistance systems for the driver during the interaction between the drivers, health and safety units during traffic accidents, and systems for the intervention of accidents as soon as possible can be given as examples. Also, electronic ticket transactions are among the other routers used today. However, the main benefit seems to be making road transport more efficient and safer. These directions are used in intercity buses all over the world, especially in Japan, which is one of the most advanced countries in terms of technology development.

Although routers have more advantages, they also have some important disadvantages. If a router goes down, it is detected after some fault in neighboring routers and the change in the routing table is propagated accordingly. In addition, if a router becomes too slow, we will be disqualified for a period of time. We stop loading it with traffic so it can reorganize its internal state and even reboot. This allows us to learn and adapt to changes in router behavior. However, this takes a lot of time. Redirects work with OSPF. Open Shortest Path First (OSPF) is a protocol that creates a complete view of the network by gathering information from all the other routers. Although using routing protocol on intercity buses, if a router goes down, it is detected after some failure in neighboring routers and the change in routing table propagates accordingly. Also, if a router gets too slow, we will be disqualified for a while. This allows us to learn and adapt to changes in router behavior. However, although this has many time-consuming disadvantages, routing protocol should definitely be used in intercity buses, since it has great advantages such as seeing the traffic in advance and seeing the weather in advance.

**CONCLUSION**

In conclusion, Routing Protocols are a set of rules used by routers to communicate between source and destination. Routing protocols are of 2 types. The first routing protocol, Static routing protocols, is used when an administrator manually assigns the route from the source to the destination network. Offers more security to the network, Second routing protocol is Dynamic routing protocols which helps it to automatically add information from connected routers to routing tables. It is a dynamic section that starts at your exit gateway and ends at an entry gateway. There are advantages and disadvantages to using a routing protocol on intercity buses. However, since it has more advantages and provides many benefits, it should be used in intercity buses.

**RESOURCES**

A Computerized Approach to the New York City School Bus Routing Problem

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