WLAN Coursework

Coursework Submission for BSc Computing - CSN09604

Edinburgh Napier University 2020-2021 Trimester 1

Name -Moe Swan Htet

Matric number- 40501818

January 2021

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Introduction of Manet

Manet is called Ad Hoc Network. It is used mobile phone, inexpensive portable and personal computing device. It increases economy by using Manet because of not expensive. Network engineering group (IETF) specify Ad Hoc routing protocol. Nowadays, TCP protocol use to control network transmission. So, Manet have believable to send information from end to end because it combine smoothy with wireless network (D. Kim, et al.,2007). Manet is effect protection and attack for open medium, changing topology, monitoring and weak control. (ELAHE FAZELDEHKORDI ,et al.,2015) Mobile node fix in self configuration and healing wireless network. If network topology change, Manet nodes move randomly. When each node traffic forward, it is as a router. Manet can be used other place. There are home, education, navy, weapons, rebots and etc (AnushkaKhattri, 2020). Pros of Manet, it is secede form center network, nodes can make router and host, it can self maintain without human. Cons of manet, manet have limit to various noise and other conditation, lack of authorization place, more attack can cause due to physical security. (AnushkaKhattri, 2020). It can control sensor node. Nowaday, many place used sensor network because this is very useful everywhere. Ad-hoc network have three different routing protocol. An then I can explain DSDV routing protocol. DSDV have in Proactive Routing protocols.

Discussion DSDV protocol

DSDV is in proactive routing protocol for Manet. It calculate route with Bellman-Ford algorithm. DSDV is preserve routing table in network. DSDV work is solving routing loop problem. When new information can receive, routing table need to update. This information can transmit to destination on intermediate nodes. (M. Manjunath, et al., 2014). SDSDV update packet transmitted to choice area. This packet can remove node in network. Rout update packet accept many packet. When DSDV routhing algorithm compare, routing overhead can be reduced. SDSDV routing algorithm have three state. There are Computation and identification of activity area, Identification of Representation nodes and Route discovery process (M. Manjunath, et al.,2014). A network contain number of node. When the high node mobility, it bandwidth can’t use. So, network prosper routing overhead by using routing process.

S-DSDV path can send update packet with minimum number node. So, network can reduce delay time and to support good performance. And then broadcast route update packet can increase routing overhead in network. Routing is best path to find in network. S-DSDV node maintain routing table and sequence number from destination. When S-DSDV connect destination, in active area, node transmitted route update packet. And the it node can transmitted between source and destination (M. Manjunath, et al., 2014). Advantage of DSDV are believed for looping free path, infinity count problem can reduced in DSDV, Extra traffic can avoid by updating, and then it can maintain to go the best paths. By making , places can reduce in routing table(P.Parvathi, 2012). DSDV limitation are it can't support Multi path routing. If network topology doesn't change, shouldn't make advertising of routing information. When the routing information advertised, bandwidth can compact, it is difficult to decide time for advertising path. (P.Parvathi, 2012). And then, SDSDV base on DSDV.

SDSDV protocol have main purpose. This protocol use to protect for changing number of sequence and number of matric in each entry. SDSDV create two hash chain in network node. It used to reduce metric attack, Two hash chains maintained by each node. SDSDV need destination ID, sequence number and matrix number for SDSDV. And then each entry need two fields(Jyu-Wei Wang, et al.,2009). When DSDV update, it wait setting time to forward. The improve DSDV is used new plan. It is used nova massage to build paths. When rout invalid, this try to create loop-free route. By using broken link, DSDV send low packet delivery. When the link hop broken, next hop immediately make assign. One node find path in routing table. If path broken and weak, node can go other path to send(Jyu-Wei Wang, et al,2009). This path to find propose Imp-DSDV. Each node have two table in Imp-DSDV. It make list for all destination. And then every node have two path. Two table is called main routing table and secondary routing table. Secondary routing table have rules. There are a secondary routing table is a valid one, infinite metic has in invalid secondary route and all secondary route are invalid at the start. More update,between full dumps of routing table broadcast update packet. (J. Lu, B. Zhang, et al.,2011).example, when the path change, to get new sequence number. Middle node cause routing update. DSDV have some problem. Some node is slow processing power. The node is small of queue size.

Some node can produce very large amount at the sometime. When the two node send at the same time, packet collide. Less hops can late to reach destination than more hops. Secondly problem, low packet can be choose lower path. And then path can cause congestion path. So, if low packet money send, this path can cause more delay time(M. Naseem, et al.,2013). DSDV had related works. There are Eff-DSDV and I-DSDV. Eff-DSDV create temporary link by sending rout request and route attack. When the node find broken link, one hop route request can send to neighbors. Routing table have each entry. In each entry have other entry for update time (J. Lu, et al.,2011). In DSDV, Routing table update have two different type of update package. There are full damp and incremental. Full damp packet have all routing information. When routing table is heavy routing table, this is needed to transferred network protocol data unit. Sometime, node produce dump packets. Incremental update type showed changing information since latest full dump. While incremental packet compared full dump, consume of the network source.

Best practice

DSDV each routing table have two part. There are namely cost and next outgoning link, this cost base on the number of hops, In milliseconds have the time delay. Each roue is call single hop in network when the metric is hop count. Example, when the 5 node across the each router to reach destination, total cost is 5 hop number. When the slow matric, this slow is time between the packet and receiving. If the long queue, it is check simply each queue. DSDV traffic environment are number of nodes three, map size is 500 and 400, Max speed is 25m/s, Traffic type is CBR and Packet size is 500 (B. Suvarna, et al.,2014). DSDV is a most popular table driven protocol in manet.it depend to arrive destination node on the hops. It work to save routing table in nodes. And then this packet to send data packet between the nodes in network. DSDV protocol have three propriety. They are routing overhead to reduce, “count to infinity” solve and void loops. DSDV have advantage and disadvantage. Advantage, DSDV is one of the early algorithms available. For creating ad hoc networks, it is quite suitable with small node of number. Disadvantage, DSDV make update with more power of battery and by using bandwidth small amount.(Fahad Taha Al-Dhief, et al.,2018). DSDV have four type. There are multipath routing in Manet, Multipath in DSDV, path

assignment and new hello message and path switch. Multipath routing in manet used path for load balancing and tolerance. It purpose avoid close path by choosing other path. It include data rate network and distributing traffic. Multi-path in DSDV, my assume that A data paths have the same bandwidth and each path can't overlap. So, this packets transmitted on different channel do not interface with other. Second, each node input half-duplex transceiver. This duplex had two. One transceiver can list and transmitted. But can't do both simultaneously. Finally, this path is multi path network to use control path nad data path(M. Jun, 2011). In my opinion, Manet is very useful in wireless communication network.it is connect mobile and wireless device. Manet each device can move freely. They can usually change to other link. Manet called mobile node and wireless links. Manet can change but it can't use to allow connection. It is working with node, nodes use for mobile. And then it is use to connect for various wireless connection. Wireless Manet is called ad-hoc multi hop. It purpose are to provide connection power limit and no existing place. Manet can change. This is good for mobile and to save more. Hierarchical management provide to create a strong connection. DSDV protocol have node and routing table. This node transmitted on the network. It is make group with laptop and they went to transmit information. In ad-Hoc network, technical challenges are wireless link had limitation , hidden terminals, packet losses, routes changes, device heterogeneity and battery power constraints. In my opinion. DSDV main propose is to avoidance routing loops. Each node can maintain routing table for all hops on the destinations. It is use number to differentiate from old routes and bad route. Routing table make automatically update. And then destination address, hops number, number of sequence and number of new sequence. It is ude highest number of sequence.

Conclusions

In the opinion, Manet is call ad-hoc network. Ad hoc network had in multi-hop wireless network. it save node by using radio signal. Manet(ad-hoc network) explained at the introduction. And then ad- hoc network had many protocols. So, my choice to explain DSDV protocol because this protocol can create Manet network with small number of nodes, solve routing loop problem and reduce count to infinity problem. DSDV immediately can get routing information from routing tables.

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