

Roll:1605042

The report is based on when at least 8 to 10 clients are present in the network.

- average number of hops and drop rate for LAMBDA = 0.01, 0.05, 0.10, 0.25, 0.50, 0.80 using DVR :

| LAMBDA | Average Drop rate | Average number of Hops |
|--------|-------------------|------------------------|
| 0.01 | 0.12 | 1.3218 |
| 0.05 | 0.22 | 1.2814 |
| 0.10 | 0.31 | 1.2444 |
| 0.25 | 0.64 | 0.4857 |
| 0.50 | 0.75 | 0.4209 |
| 0.80 | 0.84 | 0.4090 |

- After applying simpleDVR() instead of DVR() keeping LAMBDA = 0.10, average drop rate changes to 0.58.

The reason behind increasing drop rate is the update function of simpleDVR does not update based on any bad news. When the statechanger starts to change the states and any router state goes down, 3(a) situation occurs and the router which finds out that the next hop of this route is down updates the distance to infinity and informs its neighbors. Since force update is not applied its neighbors does not accept bad news even from it's gateway router to that destination and since split horizon is not applied, its neighbor still thinks that it can reach to the destination via this router. So it's neighbors table does not get updated so no new route is searched to reach the destination. Each time while reaching to that destination via this route packet is dropped at this router. Hence drop rate increases.