

Report on Network Layer Assignment

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Table for DVR:

| Lambda | | 0.01 | 0.05 | 0.10 | 0.25 | 0.50 | 0.80 |
|----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|
| Client 1 | Avg. Hop | 1.63 | 1.25 | 1.0 | 1.48 | 1.0 | 1.0 |
| | Drop rate | 6% | 36% | 86% | 65% | 94% | 91% |
| Client 2 | Avg. Hop | 1.7 | 1.65 | 0.0 | 2.03 | 0.0 | 1.0 |
| | Drop rate | 0% | 33% | 100% | 67% | 100% | 84% |
| Client 3 | Avg. Hop | 2 | 2.67 | 1.0 | 0.0 | 1.8 | 1.0 |
| | Drop rate | 0% | 28% | 74% | 100% | 89% | 83% |
| Client 4 | Avg. Hop | 1.36 | 1.38 | 1.0 | 2.48 | 2.25 | 1.0 |
| | Drop rate | 0% | 33% | 73% | 71% | 96% | 80% |
| Client 5 | Avg. Hop | 1.61 | 1.47 | 3.0 | 1.0 | 1.0 | 1.0 |
| | Drop rate | 1% | 32% | 77% | 55% | 87% | 98% |

Comparison between simpleDVR and DVR:

Table for simpleDvr:

| | | |
|----------|-----------|-----|
| Client 1 | Drop rate | 87% |
| Client 2 | Drop rate | 88% |
| Client 3 | Drop rate | 93% |
| Client 4 | Drop rate | 97% |
| Client 5 | Drop rate | 73% |

For $\lambda = 0.10$
avg. drop rate in DVR = 82%
avg. drop rate in simpleDVR = 87.6%

So, we can say that DVR with split horizon and forced update is better than DVR without them. Also there is some problem in DVR without split horizon and forced update and that is there can occur infinite loop in it.