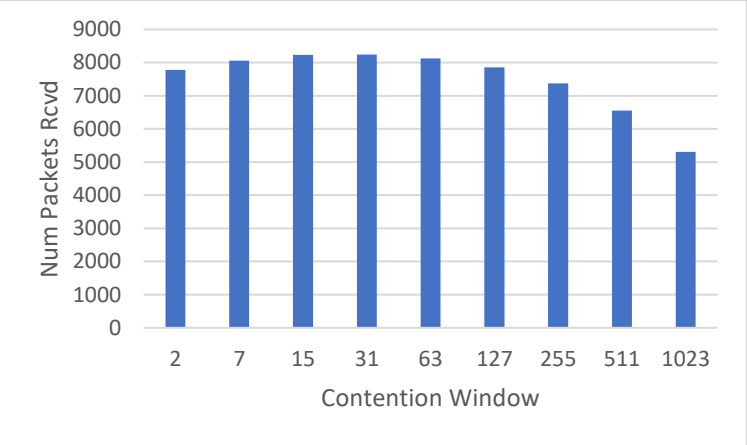
TP2 – Contention Window

The data was produced using the "DSDV" routing protocol.

The values obtained are as follows:

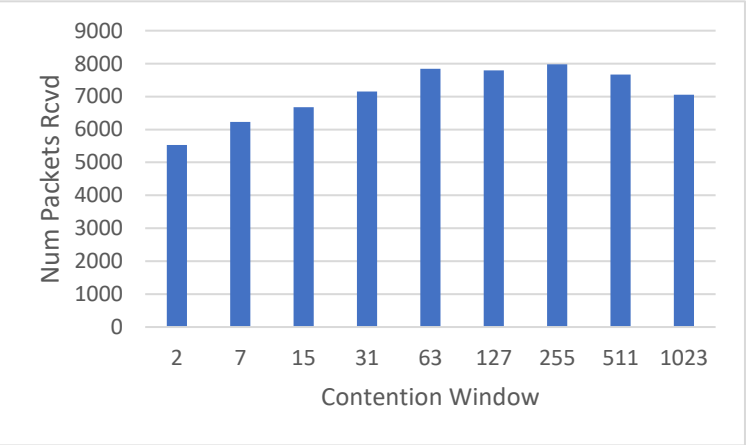
Number of Nodes = 3

CWMin_ = CWMax_	Packets received
2	7780
7	8055
15	8231
31	8239
63	8129
127	7856
255	7375
511	6556
1023	5307



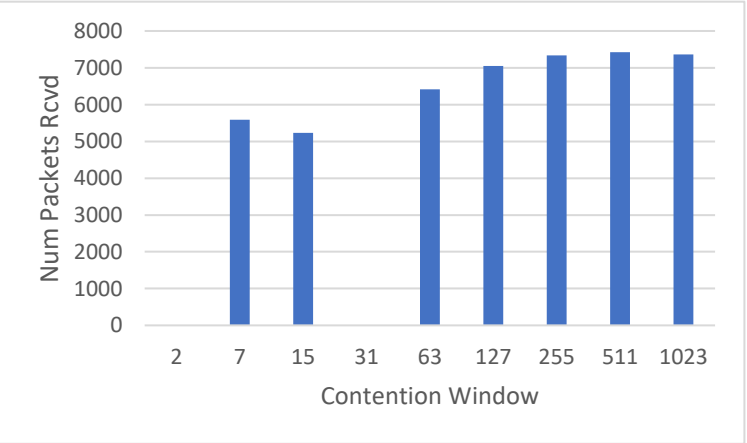
Number of Nodes = 10

CWMin_ = CWMax_	Packets received
2	5532
7	6231
15	6679
31	7157
63	7844
127	7798
255	7974
511	7669
1023	7055



Number of Nodes = 50

CWMin_ = CWMax_	Packets received
2	
7	5591
15	5235
31	
63	6412
127	7053
255	7339
511	7420
1023	7362



It can be seen on each graph that the trend increases and then decreases. An optimal value can therefore be deduced.

- With the number of nodes at 3, the optimal value has a contention window of 31.
- With the number of nodes at 10, the optimal value has a contention window of 255.
- With the number of nodes at 50, the optimal value has a contention window of 511. For this value, we had to set the contention window up to 1023 instead of 255 in order to determine the optimal size.

If we try to run with larger topologies, we can assume that the number of packets received will decrease until it reaches 0.
Indeed, we can see from the values on the graph that the number of packets received increases with a larger contention window, until it reaches an optimal size and then decreases.