For the first simulation, I was expecting that as the packets increase, the number of transmissions required should increase too. So was the case with the first simulation.  
The figure mostly behaves how I expected. And it was the same with the two series network.   
With the parallel links. I was expecting the transmission to get reduced, since the packet would be sent on two different paths mostly increasing the chances for delivery. And with an increase in the number of packets, the two channels would make it easy. However, it wasn’t the case, This parallel network almost behaved like the series or single link network.   
The compound link network incorporated both single link and parallel link networks. I was expecting it to behave differently from the other and it was the case.   
  
This experiment helped me to see that packet transmission is more relying on probability than on the transmission medium.