We have completed our study of the dialer performance of the SCS-1 receiver system. The purpose was to define the total number of transmissions that can be received by the receiver, while still providing a 90% probability that the next control panel will make contact without receiving a busy signal.

To make this statistical calculation, standard telephone exchange and trunk engineering practices were employed to determine the proper traffic volume[1]. A mean transmission time of 5.5 seconds was used in the calculation. The mean time for DMP controls to make a transmission is actually less than 5.5 seconds. The table below indicates the maximum number of transmissions that can be received in one hour while still providing a grade of service of 85, 90 and 95%.

No. of phone lines	Number of transactions per hour		
	85%	90%	95%
2	521	389	249
3	1049	831	588
4	1637	1336	1001
5	2263	1884	1449

As can be seen from the table, increasing the number of phone lines serving the same hunt group will multiply the volume of transmissions that can be received. This increase in traffic capacity can be achieved while still maintaining the desired grade of service for your control panels.

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