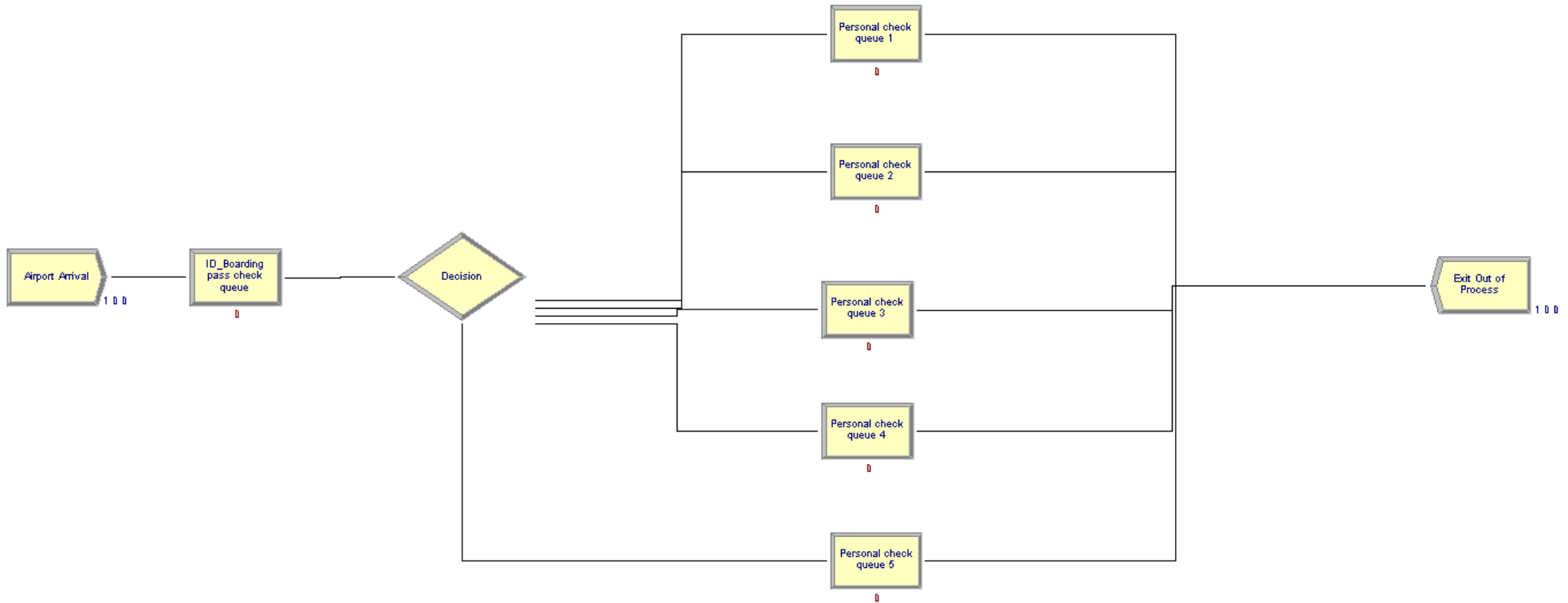


Question 13.2

This model has five personal check queues with 2 resources in each queue except for queue 3 which has 3 resources. The ID Check queue has 3 resources.

Plugging in the distributions as mentioned in the problem for each step, the estimated total time for 100 observations, averaged over a 24-hour period is found to be 32.5468 minutes. I have created another model which I have discussed about in the next parts of this report.



In this part, I am using 10 check queues with 3 scanners for queue 1 – 9 and 4 for queue 10. The ID Boarding pass check queue has 4 scanners. Plugging in the distributions as mentioned in the problem for each step, the estimated total time for 100 observations, averaged over a 24-hour period is found to be 32.5468 minutes. Perhaps, increasing the number of scanners and queues will decrease the total wait time further. I have attached the report for the second model as a part of the assignment.

