Observed W: 5.9608 minutes --> calculated from our data

Model1:

M/M/2

lamda: 0.267770516023,

mu: 0.212336486777

Conf int of W: (7.101469888538494, 7.936520087657286)

Estimate of W: 7.5189949881 ==> by using Simpy simulation

Estimate of W: 6.406 ==> by using M/M/2 theoretical model formula

Model2:

The fittest distribution of Service time is Gamma distribution with parameters (alph=3.876165, theta=1.214991,).

The fittest distribution of arrive time is exponential distribution with parameter(lamda=0.267770516023)

Estimate of W: 6.88356238724

Conf int of W: (6.643532501889453, 7.123592272586036)

Model3:

if service time and interarrival time are both empirical distributed.

Estimate of W: 6.43099268216

Conf int of W: (6.276351543029367, 6.5856338212946035)

On conclusion, by comparing the difference of estimated W and observed W, model3 is the fittest model for our data, model2 is the second fitted model and mode1 is the least fitted model in the three models.