2.1

> descdist(data[,8]/data[,7], discrete = FALSE, boot = NULL, method = "unbiased", graph = TRUE, obs.col = "darkblue", obs.pch = 16, boot.col = "orange")

summary statistics

------

min: 32 max: 19051.99

median: 149

mean: 264.1129

estimated sd: 470.4213

estimated skewness: 18.39006

estimated kurtosis: 538.909

> plot.gamma<-fitdist(data[,8]/data[,7],'gamma','mme')

> plot(plot.gamma)

> plot(ecdf(data[,8]/data[,7]),main='empirical cumulative distribution function of packet length')

> summary(data[,8]/data[,7])

Min. 1st Qu. Median Mean 3rd Qu. Max.

32.0 72.0 149.0 264.1 358.5 19052.0

2.7

> descdist(data[,8], discrete = FALSE, boot = NULL, method = "unbiased", graph = TRUE, obs.col = "darkblue", obs.pch = 16, boot.col = "orange")

summary statistics

------

min: 32 max: 11424977388

median: 442

mean: 738269.4

estimated sd: 89197773

estimated skewness: 128.0077

estimated kurtosis: 16398.76

> fit.gamma<-fitdist(data[,8],"gamma","mme")

> plot(fit.gamma)

> summary(data[,8])

Min. 1st Qu. Median Mean 3rd Qu. Max.

3.200e+01 1.200e+02 4.420e+02 7.383e+05 2.320e+03 1.142e+10

2.9

pengh1@vdiubuntu104 ~/Desktop/FinalAssignment/Task2/PS2/2.9

% bash countrow.sh

number of flow with 1 second timeout is: 53412

number of flow with 10 second timeout is: 32056

number of flow with 60 second timeout is: 16430

number of flow with 120 second timeout is: 15644

number of flow with 1800 second timeout is: 13706

2.10

> View(rtt0)

> colnames(rtt0)<-c("src to dst","dst to src")

> summary(rtt0[,1])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.0 24.5 42.0 124.9 234.4 622.8

> sd(rtt0[,1])

[1] 125.8001

> summary(rtt0[,2])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.000 0.000 0.100 4.203 10.200 69.300

> sd(rtt0[,2])

[1] 6.200801

2.11

> sum(data[,8])\*8/(max(data[,11]-min(data[,10])))

[1] 6734491

> sum(data[,8])\*8/(max(data[,11]-min(data[,10])))/(1024)^2

[1] 6.422511

retransmissions

> colnames(retr)<-c("src to dst","dst to src")

> summary(retr[,1])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.0 0.0 0.0 534.4 0.0 25540.5

> sd(retr[,1])

[1] 2330.534

> summary(retr[,2])

Min. 1st Qu. Median Mean 3rd Qu. Max.

0.000 0.000 0.000 7.383 0.000 3939.600

> sd(retr[,2])

[1] 122.8786