## ZipF

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24 November, 2021

### Parâmetros

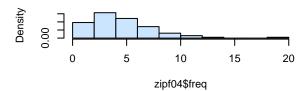
Parâmetros   Valores						
	-					
alfa zipf	0.4, 0.6, 0.8, 1, 1.2					
lambda	I 5					
n	100					
beta	1 0.2					
BS	1 32					
Cache	100					
UE	1 200					
Storage	MBS 20GB SBS 4GB					
Coverage	MBS 300 SBS 70					
RTT inicial	CS/MBS 0.001s(1ms) MBS/MBS 0.001s(1ms) MBS/SBS 0.001s(1ms) SBS/UE 0.001s(1ms)					
Tempo da Requisição	10 eventos					
Mobilidade	40m					

### Informações da Aplicação.

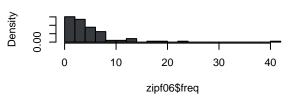
Vazão Mínima		Tamanho da Cache	Buffer		
	-				
100 Mbps	-	2GB/2000MB	-	48Mb	1
100 Mbps	-	4GB/4000MB		48Mb	1
100 Mbps	1	8GB/8000MB		48Mb	1

Distribuição de popularidade do conteúdo solicitado.

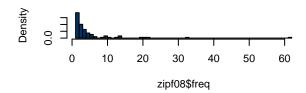
#### Histogram of zipf04\$freq



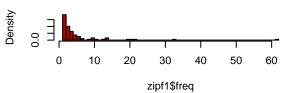
#### Histogram of zipf06\$freq



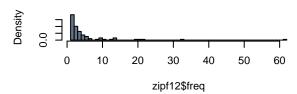
#### Histogram of zipf08\$freq



#### Histogram of zipf1\$freq



#### Histogram of zipf12\$freq



#### Taxa de requisições alocadas.

 $\alpha : 0.4 = 100\%$  - 500/500.

 $\alpha:0.6=100\%$  - 500/500.

 $\alpha:0.8=100\%$  - 500/500.

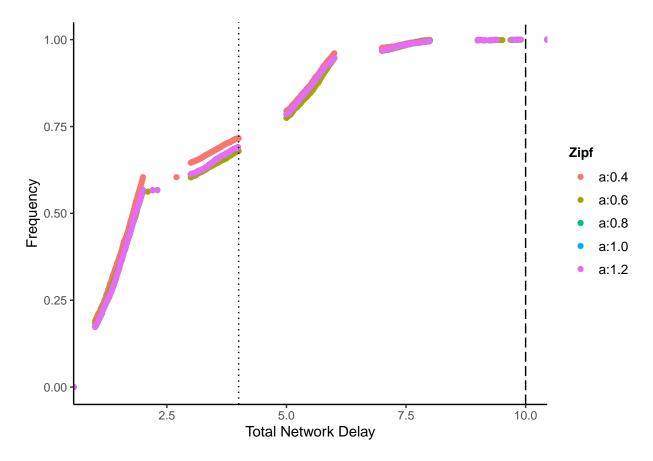
 $\alpha: 1.0 = 100\%$  - 500/500.

 $\alpha: 1.2 = 100\%$  - 500/500.

#### Distribuição da Latência

## Saving  $6.5 \times 4.5$  in image

## Saving  $6.5 \times 4.5$  in image



 $\alpha$ : 0.4 Em 71.56% da amostra a latência das requisições são menores que 4 milisegundos. Em 100% da amostra a latência das requisições são menores que 10 milisegundos.  $\alpha$ : 0.6

Em 67.9% da amostra a latência das requisições são menores que 4 milisegundos. Em 100% da amostra a latência das requisições são menores que 10 milisegundos.  $\alpha$ : 0.8

Em 69.07% da amostra a latência das requisições são menores que 4 milisegundos. Em 100% da amostra a latência das requisições são menores que 10 milisegundos.  $\alpha$ : 1.0

Em 67.9% da amostra a latência das requisições são menores que 4 milisegundos. Em 100% da amostra a latência das requisições são menores que 10 milisegundos.  $\alpha$ : 1.2

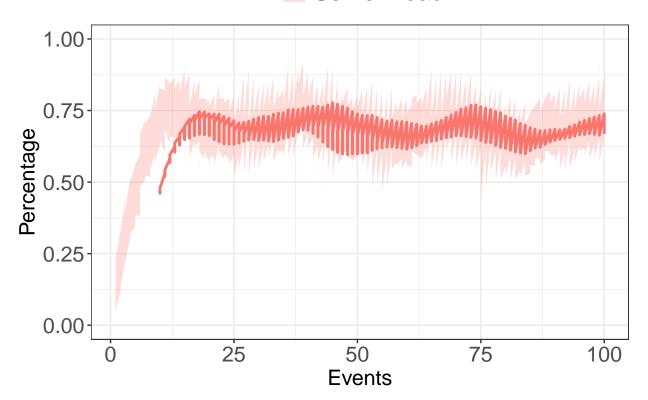
Em 69.07% da amostra a latência das requisições são menores que 4 milisegundos. Em 100% da amostra a latência das requisições são menores que 10 milisegundos.

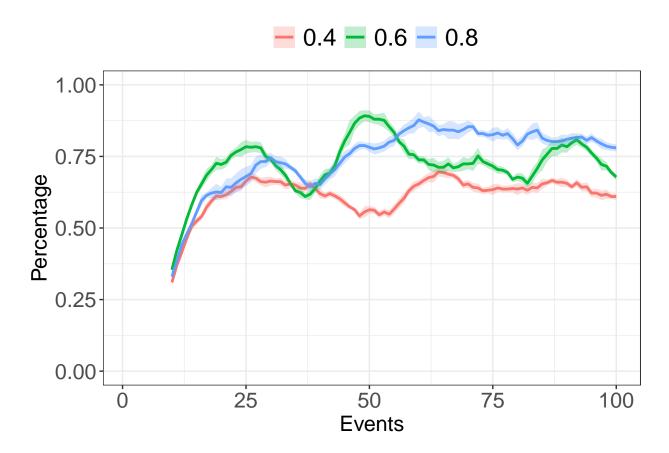
#### Cache, Cloud e Storage.

## Saving 6.5 x 4.5 in image

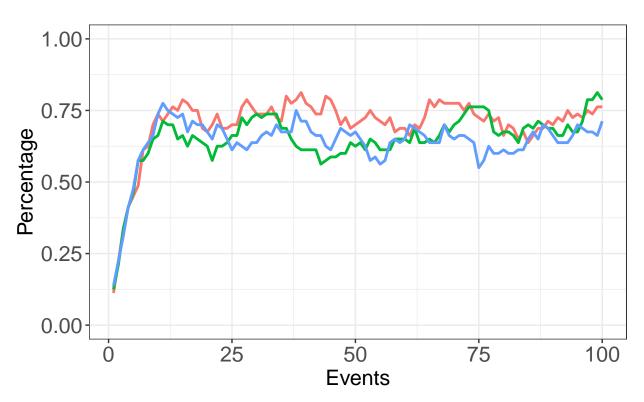
```
## Saving 6.5 x 4.5 in image
```

### Server Load

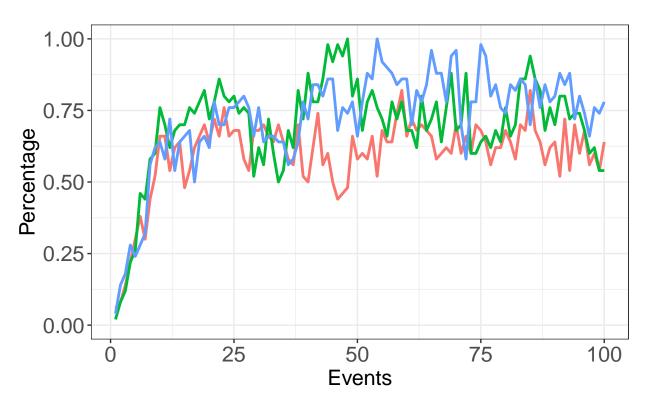


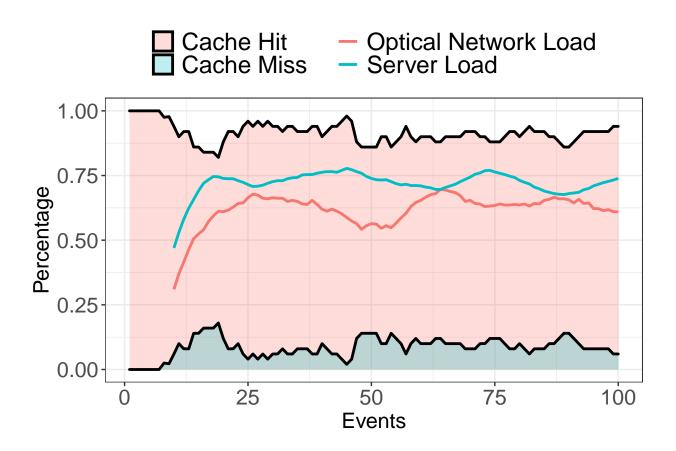


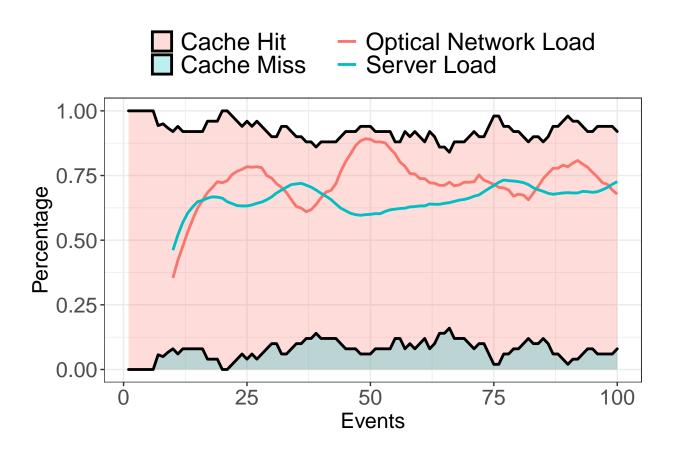


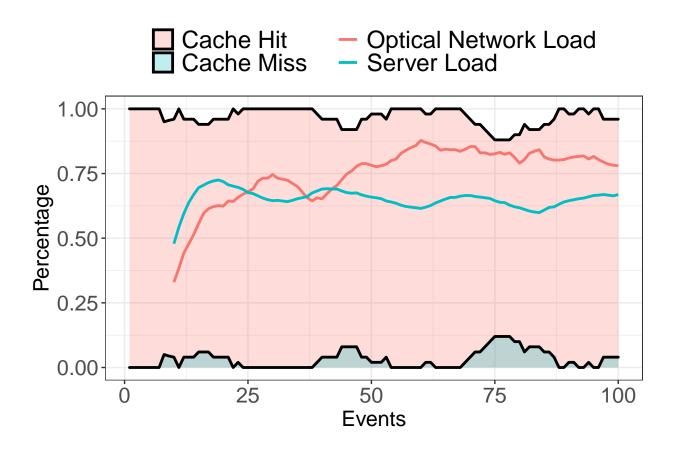












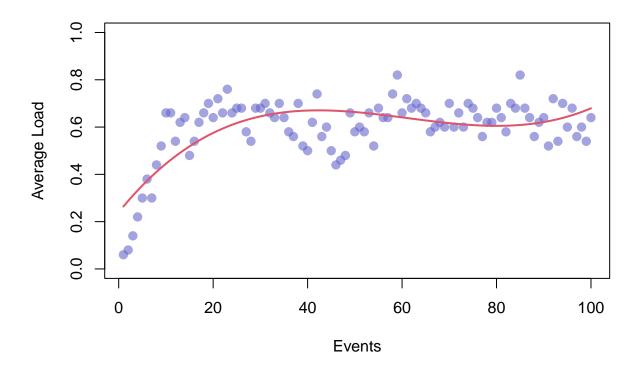
Correlação entre uso do armazenamento de variação de  $\alpha$ 

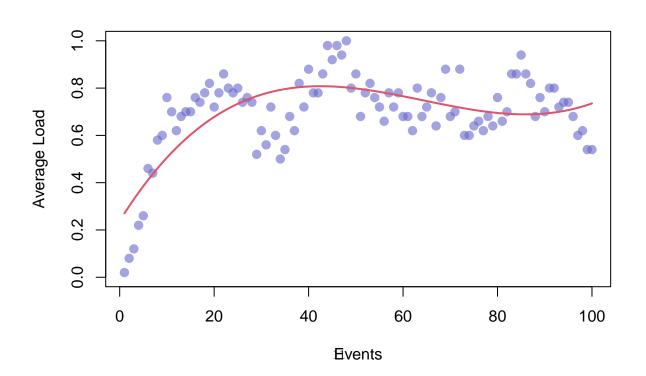
Correlação entre as medianas da latência e variação de  $\alpha$ 

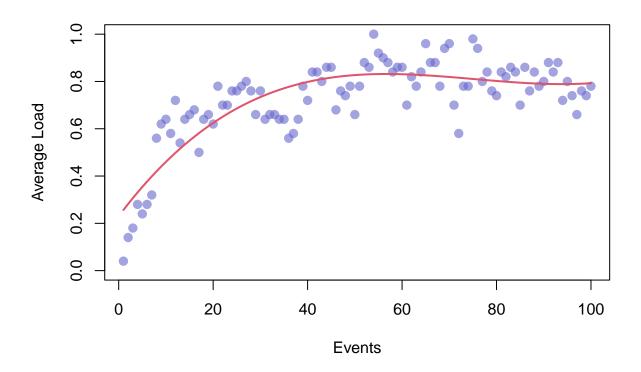
## [1] 0.5702474

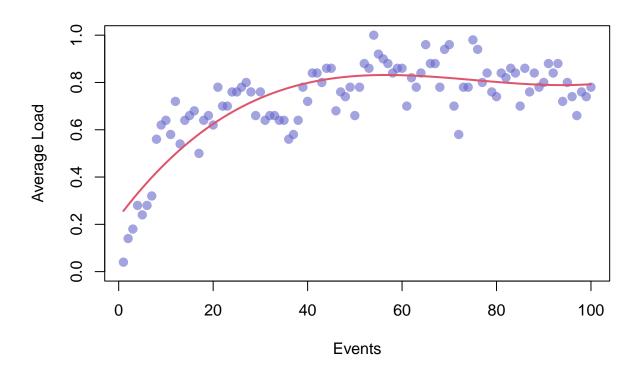
Correlação entre taxas aceitação e variação de  $\alpha$ 

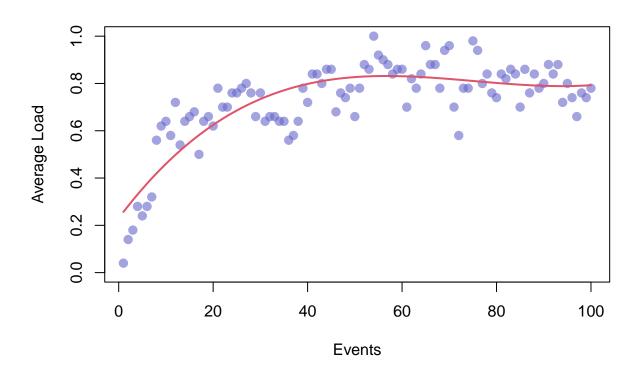
Somatório da Carga dos enlaces ópticos por evento(normalizado pelo maior somatório).

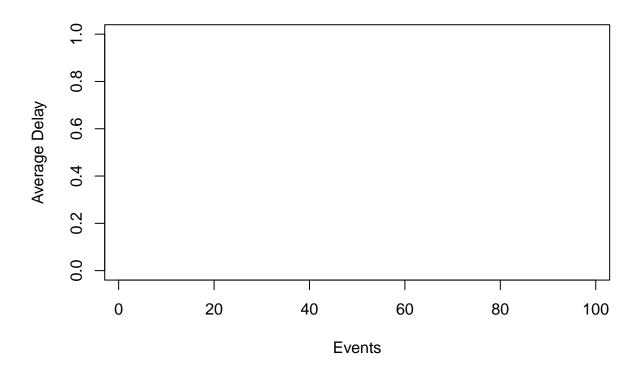


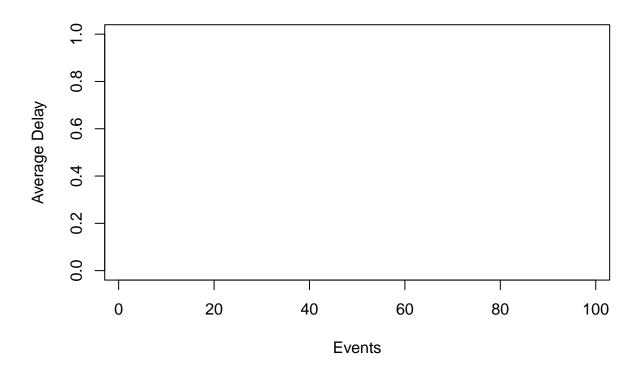


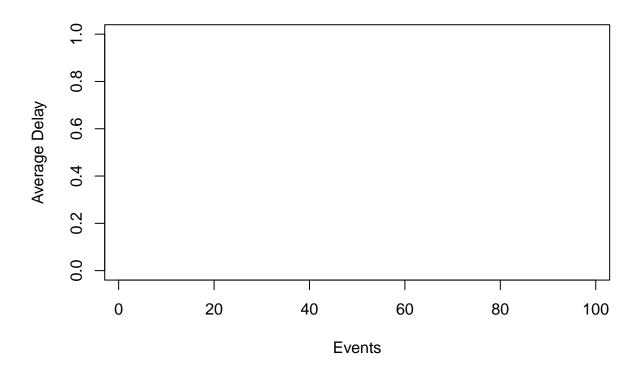


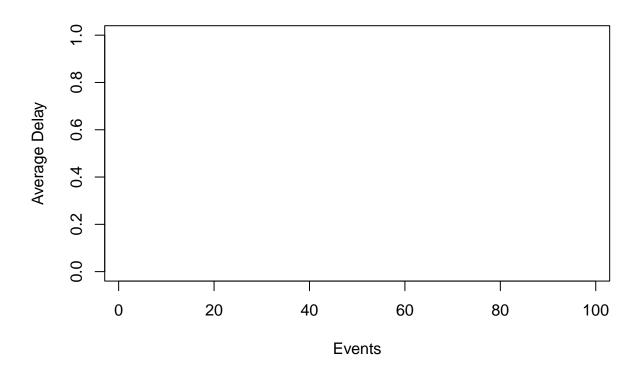


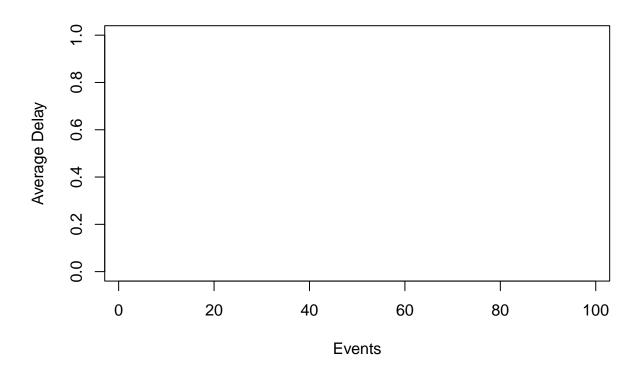


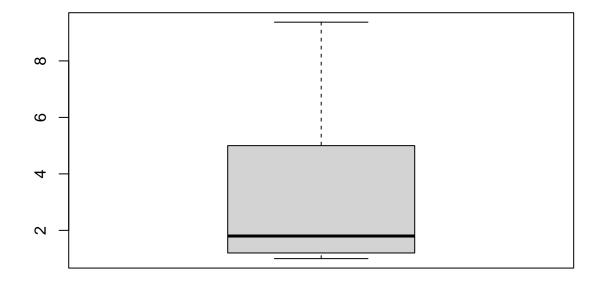




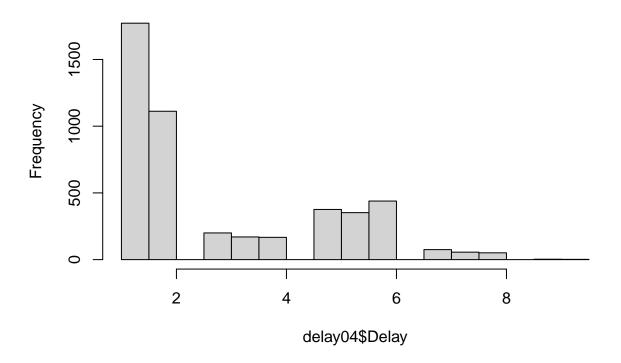


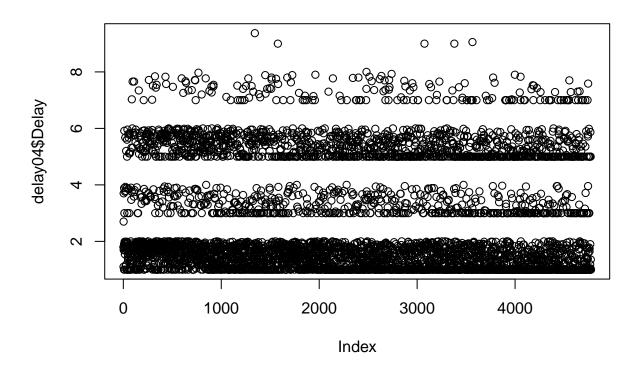


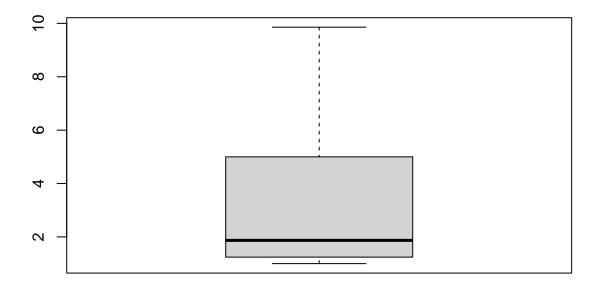




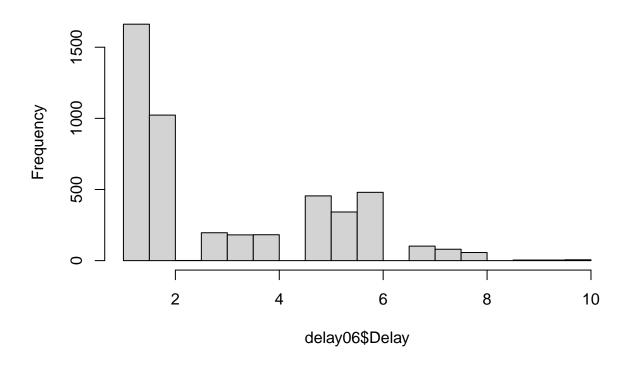
# Histogram of delay04\$Delay

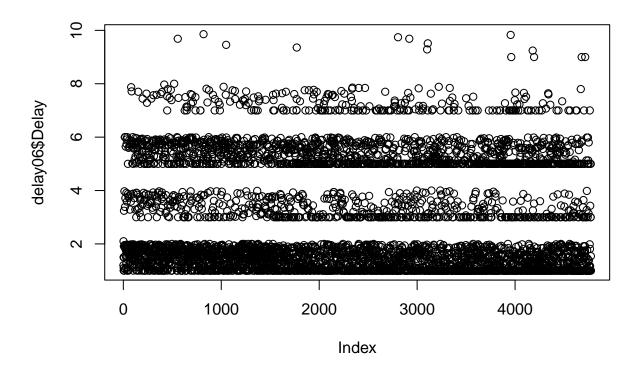


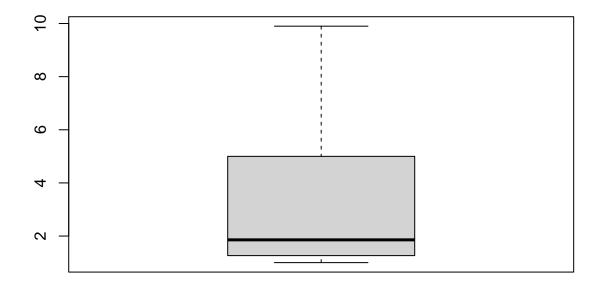




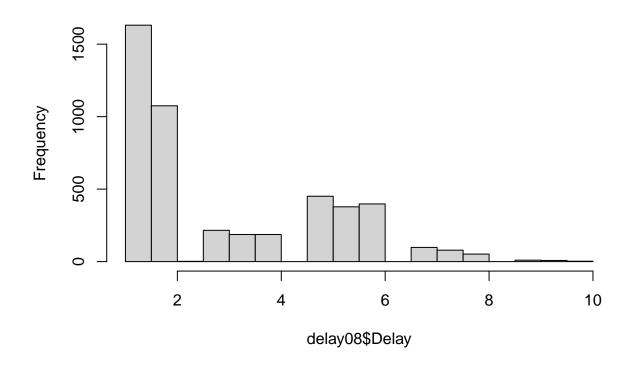
# Histogram of delay06\$Delay

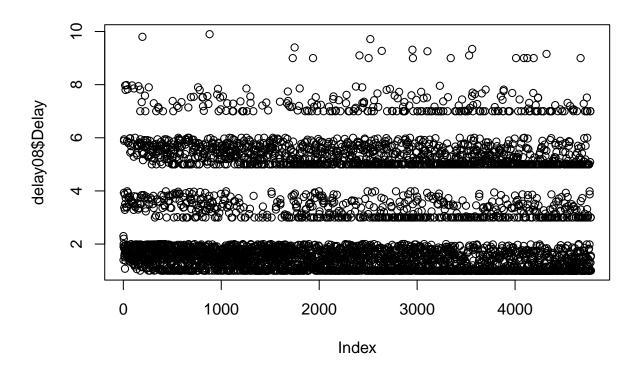


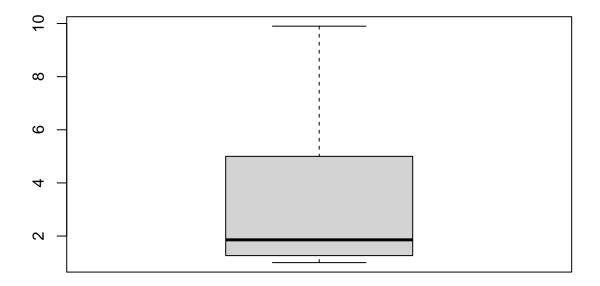




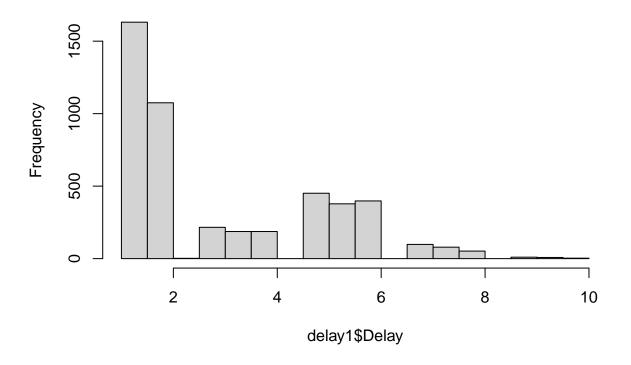
## Histogram of delay08\$Delay

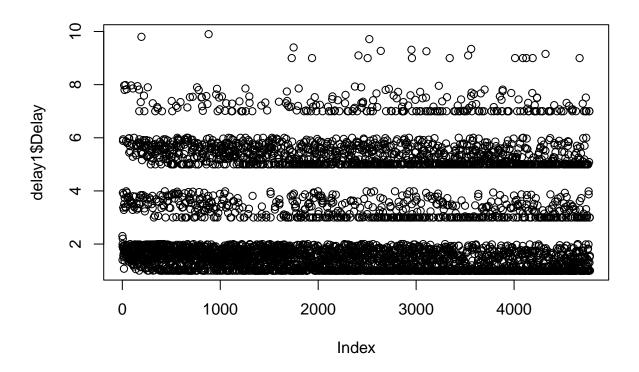


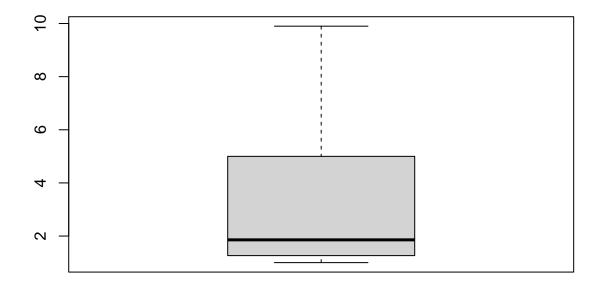




### Histogram of delay1\$Delay







## Histogram of delay12\$Delay

