

Bottleneck Analysis

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Bottle delivery data

Interval	Response Time	Throughput
10	3.1	22
20	1.2	41
30	7.9	32
...

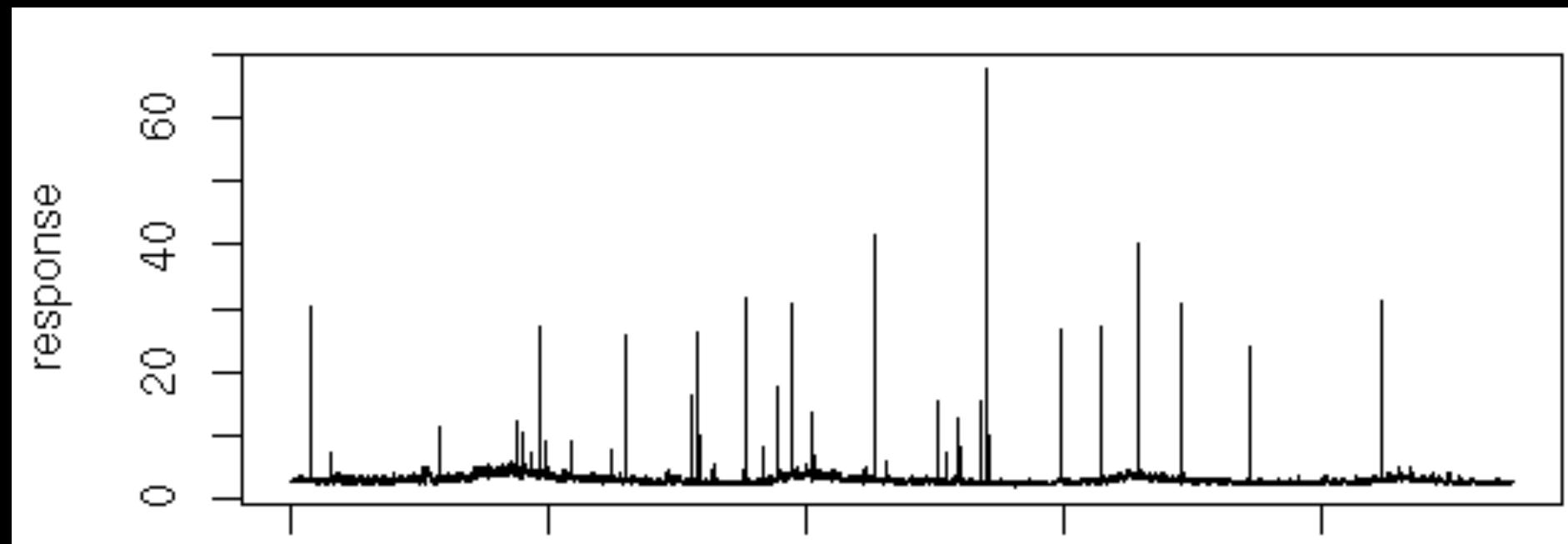
Grab some data (using R)

```
beer <-  
read.csv(url("http://staash.com/beer_operation  
s.csv"))
```

```
response <- beer[,2]
```

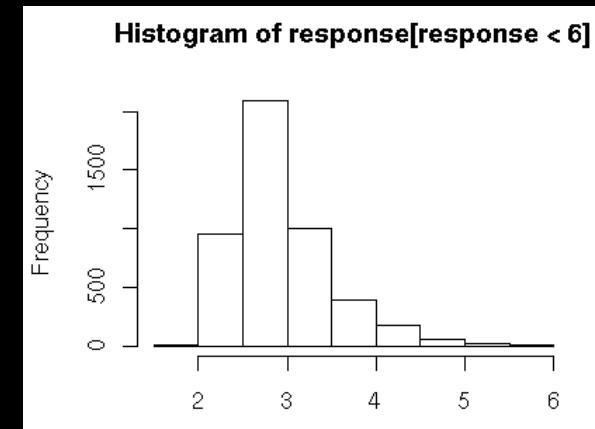
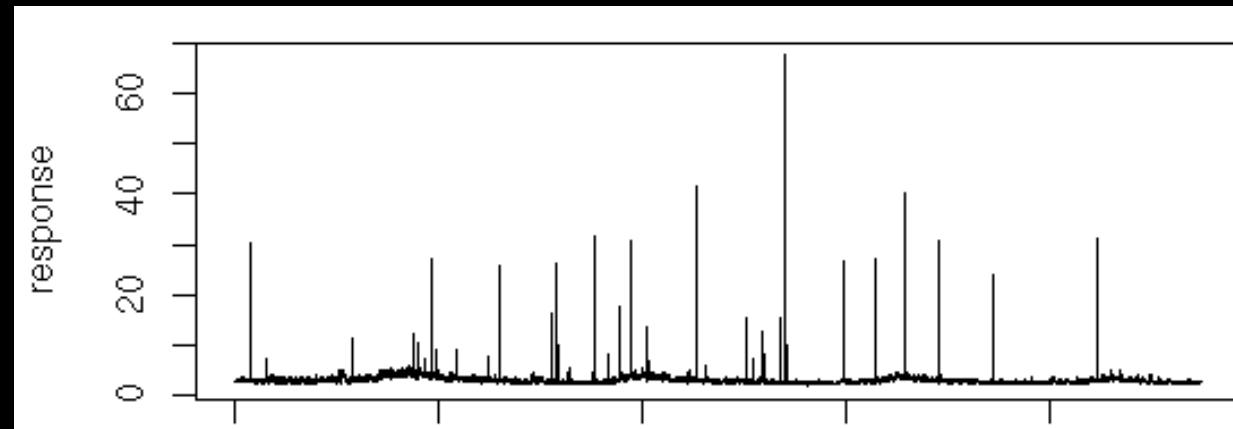
```
plot(response, type="S",ylab="response")
```

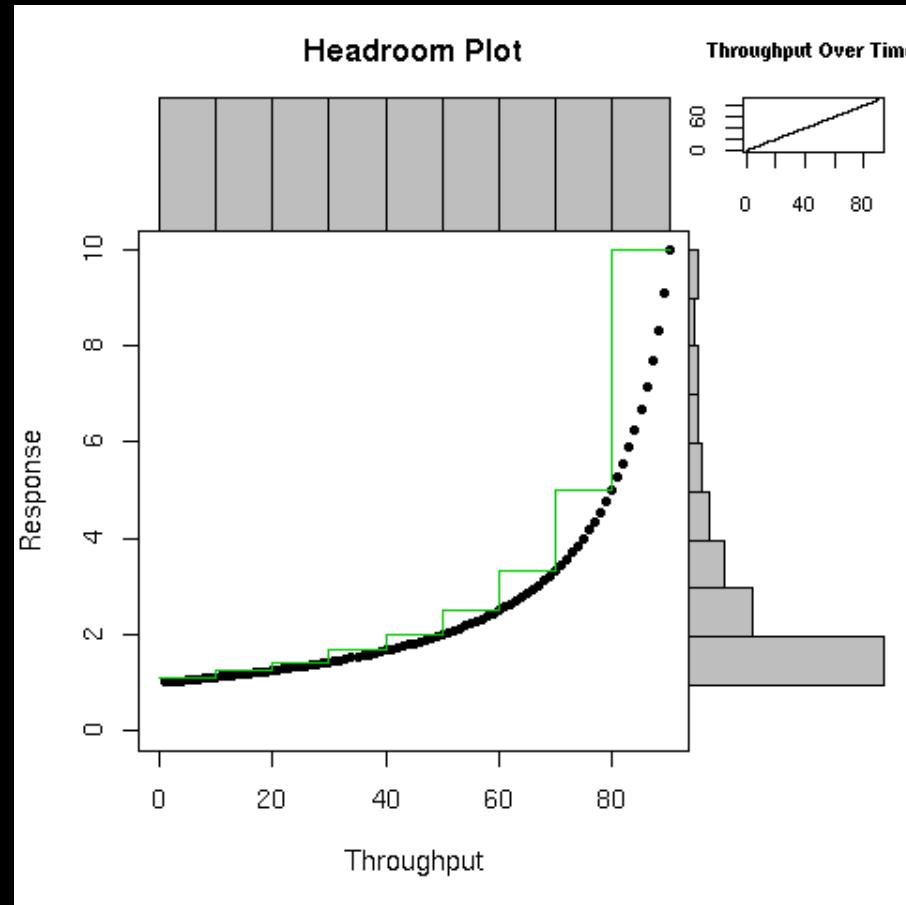
Bottle delivery response over time



Analysis

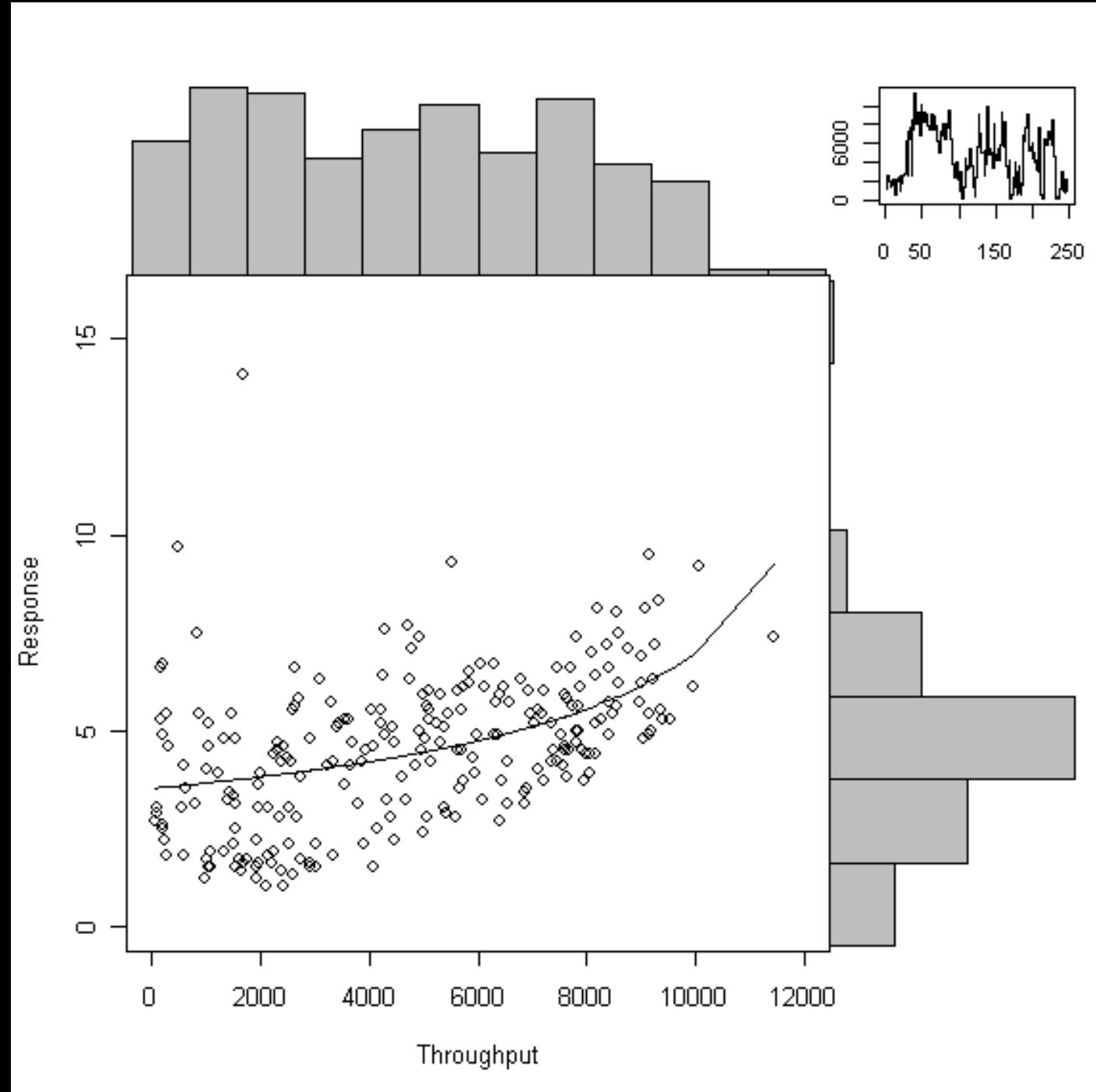
```
> summary(response)
   Min. 1st Qu. Median      Mean 3rd Qu.      Max.
1.909   2.550   2.820   3.086   3.214   67.680
> quantile(response,c(0.95,0.99))
    95%     99%
4.149556 6.922115
> sd(response)
1.941328
> mean(response) + 2 * sd(response)
6.968416
```



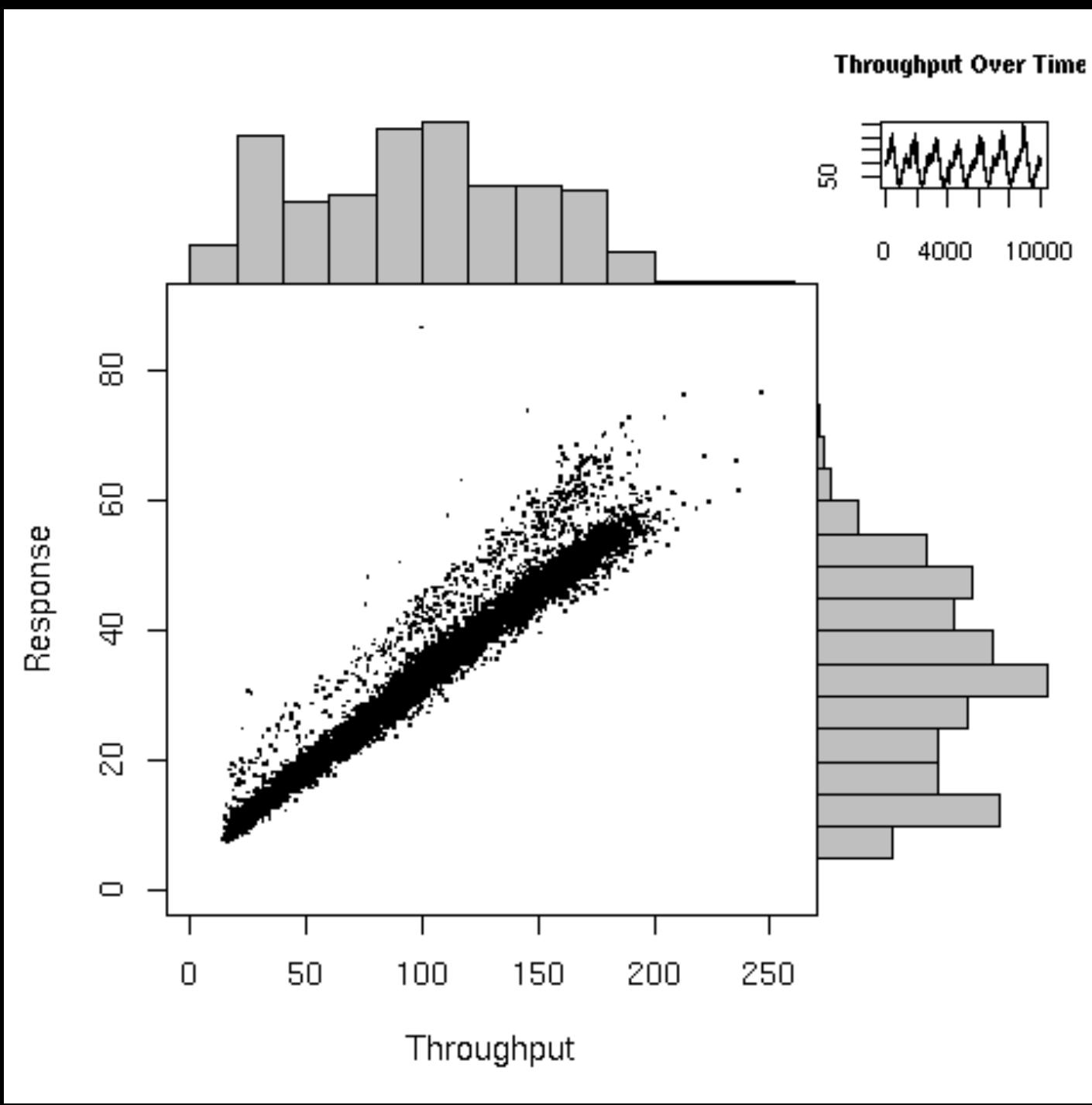


`chp(throughput,response,q=1.0)`

(See <http://perfcap.blogspot.com/search?q=chp>)

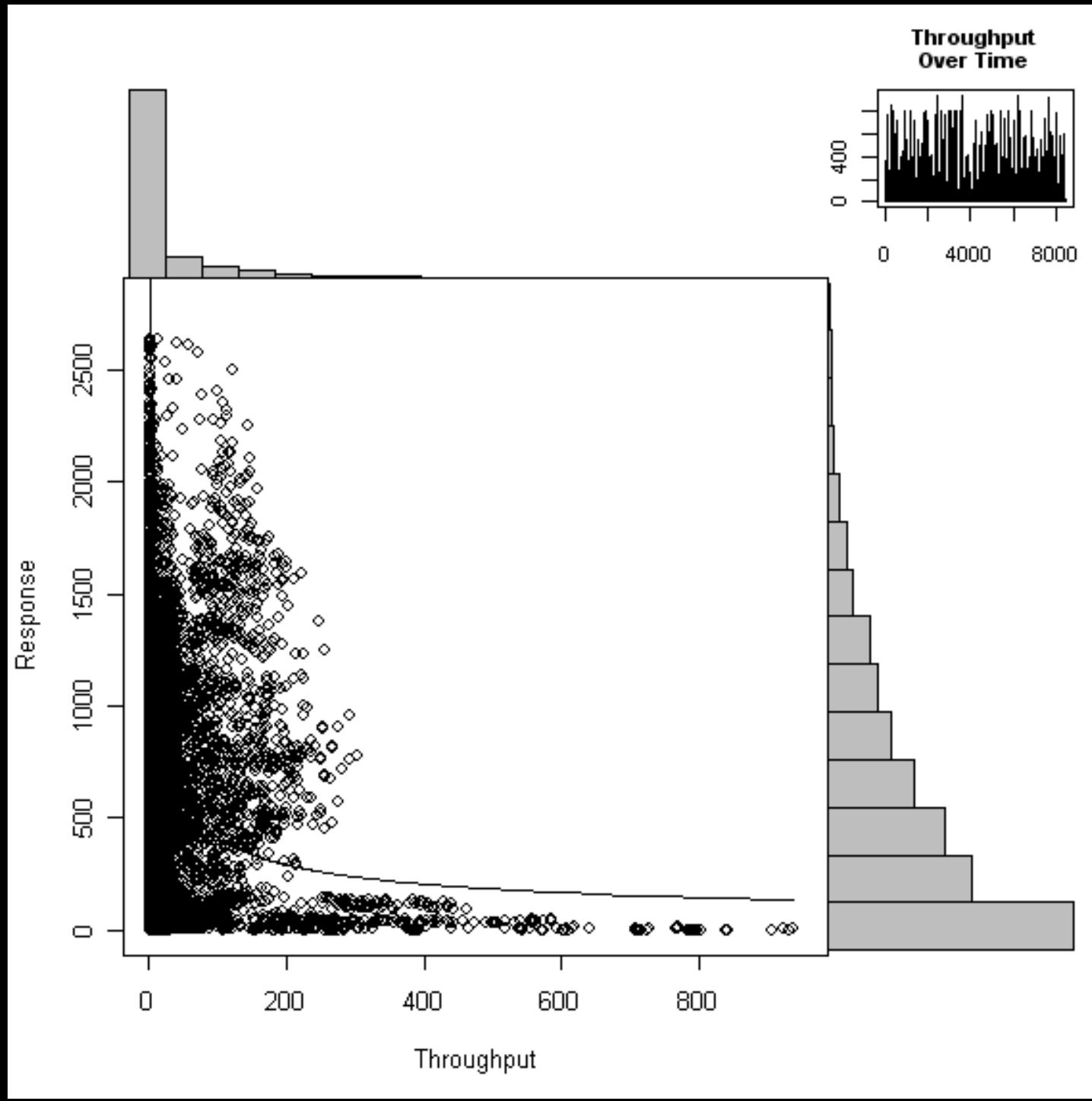


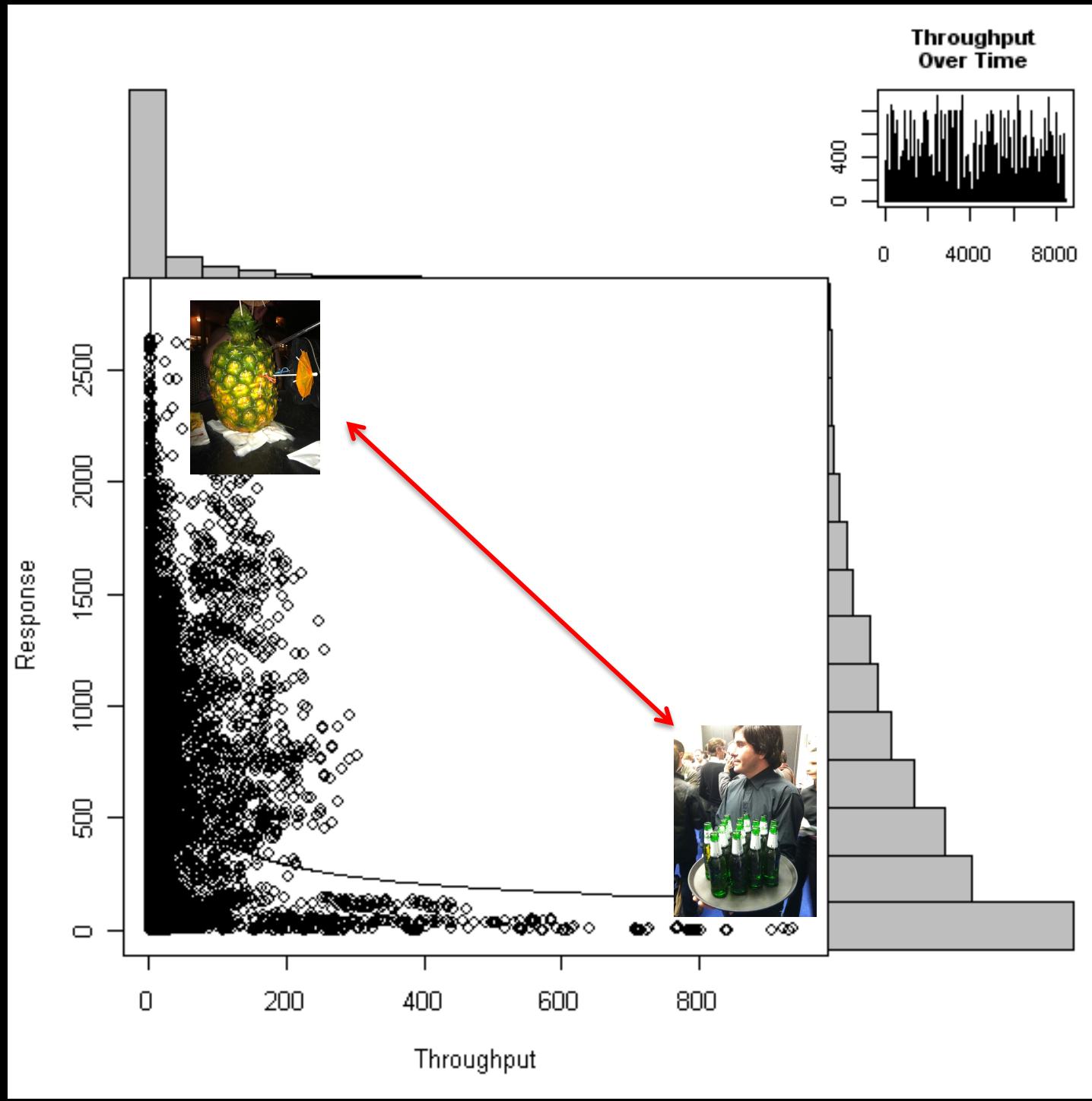


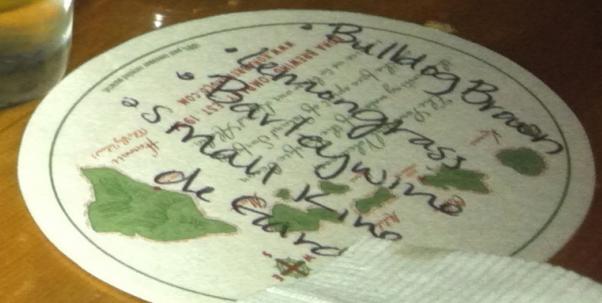




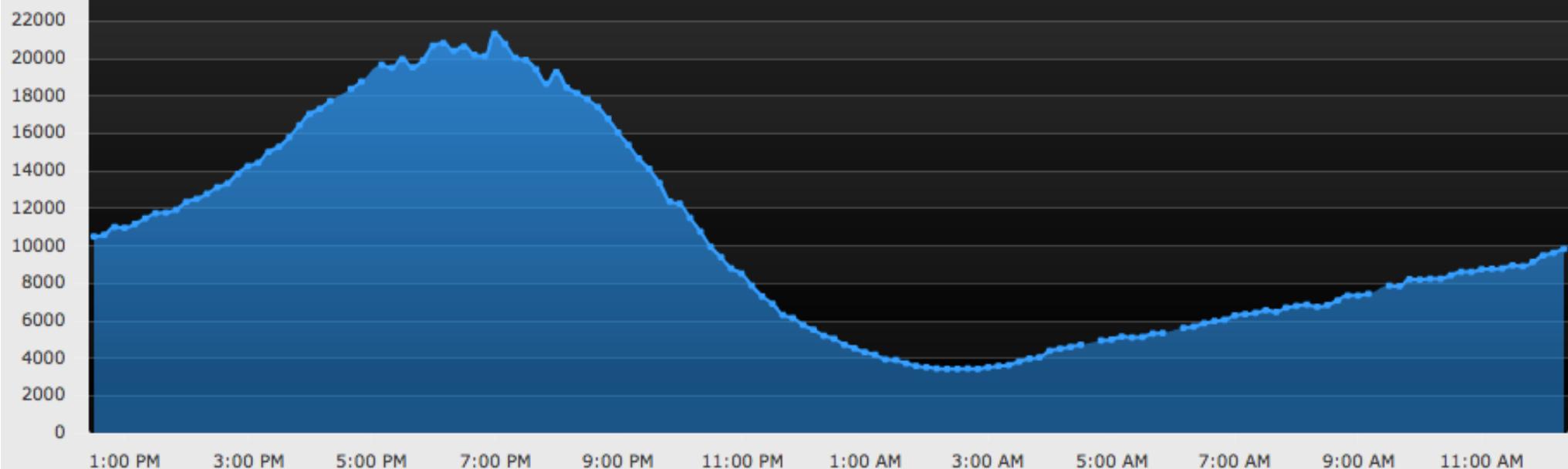




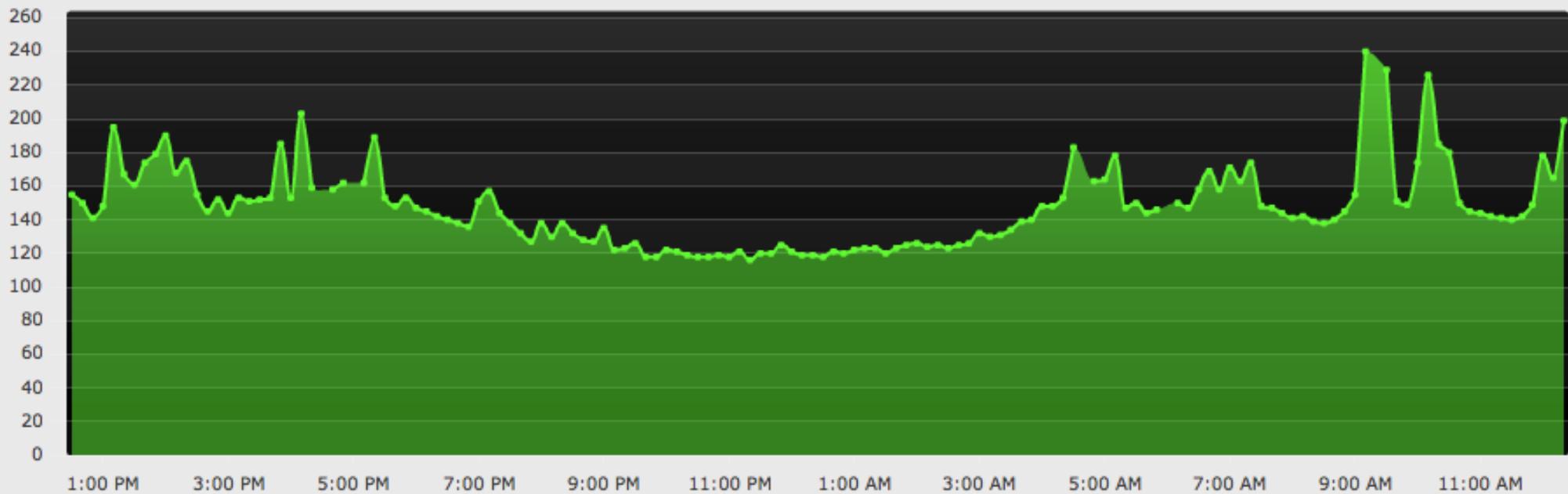




 apiproxy-prod.AppleTV Calls per Minute

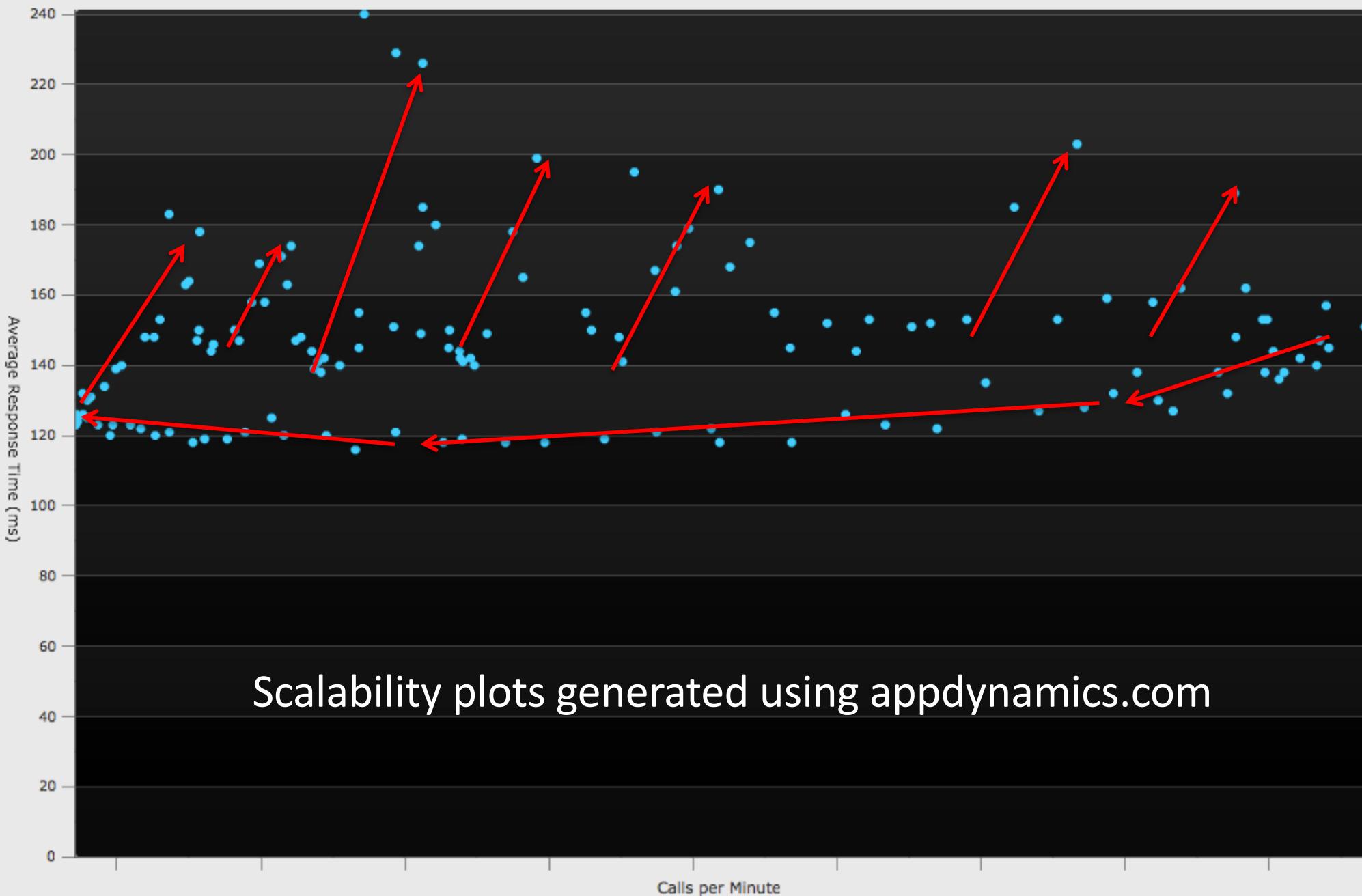


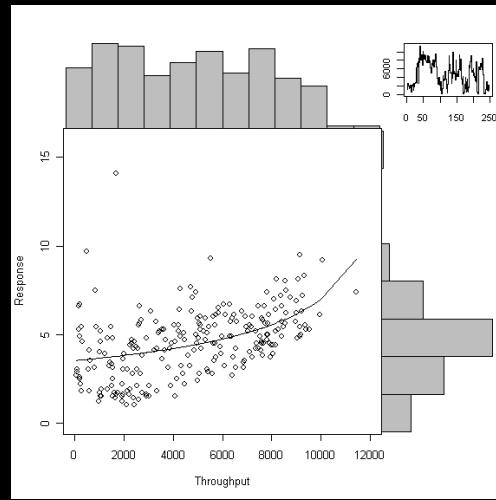
 apiproxy-prod.AppleTV Average Response Time (ms)



apiproxy-prod.AppleTV Response Time (ms) vs Load

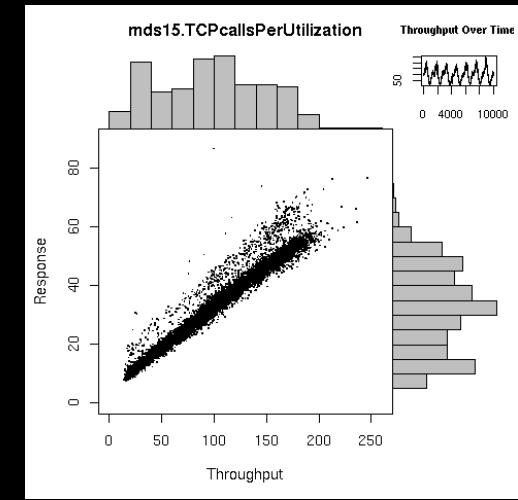
 Best Fit Line (Show) 



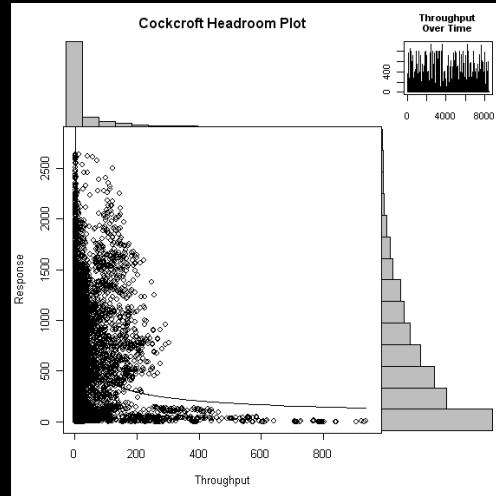


Well behaved

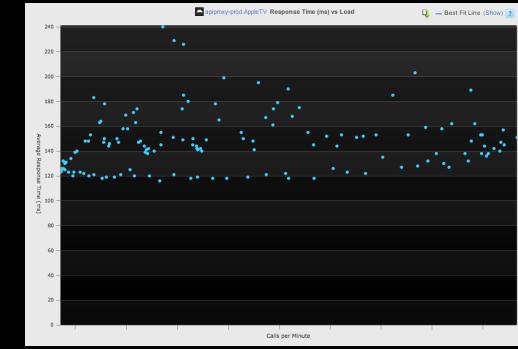
Bottlenecks



Lock Contention



Oscillating, thread shortage



Looping autoscaled

<http://perfcap.blogspot.com/search?q=chp>

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