

# Fix high SoftIRQ on 4.13 kernel

## Create

`/etc/sysctl.d/99-network-tuning.conf`  
file

```
touch /etc/sysctl.d/99-network-tuning.conf
```

## Insert the following text into

`/etc/sysctl.d/99-network-tuning.conf`

*The code below also contains various buffer updates.*

```
# http://www.nateware.com/linux-network-tuning-for-2013.html# Increase Linux autotuning TCP
buffer limits
# Set max to 16MB for 1GE and 32M (33554432) or 54M (56623104) for 10GE# Don't set tcp_mem
itself! Let the kernel scale it based on RAM.
net.core.rmem_max = 16777216
net.core.wmem_max = 16777216
net.core.rmem_default = 16777216
net.core.wmem_default = 16777216
net.core.optmem_max = 40960
```

```
# cloudflare uses this for balancing latency and throughput# https://blog.cloudflare.com/the-  
story-of-one-latency-spike/  
net.ipv4.tcp_rmem = 4096 1048576 2097152  
net.ipv4.tcp_wmem = 4096 65536 16777216  
# Also increase the max packet backlog  
net.core.netdev_max_backlog = 100000  
net.core.netdev_budget = 50000  
# Make room for more TIME_WAIT sockets due to more clients,# and allow them to be reused if we  
run out of sockets  
net.ipv4.tcp_max_syn_backlog = 30000  
net.ipv4.tcp_max_tw_buckets = 2000000  
net.ipv4.tcp_tw_reuse = 1  
net.ipv4.tcp_fin_timeout = 10  
# Disable TCP slow start on idle connections  
net.ipv4.tcp_slow_start_after_idle = 0  
# If your servers talk UDP, also up these limitsnet.ipv4.udp_rmem_min = 8192  
net.ipv4.udp_wmem_min = 8192  
# Actual fix for high softirq in 4.13net.core.netdev_budget_usecs = 5000
```

# Reboot the server

```
/sbin/reboot
```

Revision #1

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