



Exercise 6.1 System Tunables with **sysctl**

1. Check if you can **ping** your own system. (Note on **RHEL 7** you must be root to run **ping** on most external network addresses.)
2. Check the current value of `net.ipv4.icmp_echo_ignore_all`, which is used to turn on and off whether your system will respond to **ping**. A value of 0 allows your system to respond to pings.
3. Set the value to 1 using the **sysctl** command line utility and then check if pings are responded to.
4. Set the value back to 0 and show the original behavior is restored.
5. Now change the value by modifying `/etc/sysctl.conf` and force the system to activate this setting file without a reboot.
6. Check that this worked properly.

You will probably want to reset your system to have its original behavior when you are done.

Solution 6.1

You can use either `localhost`, `127.0.0.1` (loopback address) or your actual IP address for target of **ping** below.

1.

```
$ ping localhost
```
2.

```
$ sysctl net.ipv4.icmp_echo_ignore_all
```
3.

```
$ sudo sysctl net.ipv4.icmp_echo_ignore_all=1
$ ping localhost
```
4.

```
$ sudo sysctl net.ipv4.icmp_echo_ignore_all=0
$ ping localhost
```
5. Add the following line to `/etc/sysctl.conf`:

```
net.ipv4.icmp_echo_ignore_all=1
```


and then do:

```
$ sysctl -p
```
6.

```
$ sysctl net.ipv4.icmp_echo_ignore_all
$ ping localhost
```

Since the changes to `/etc/sysctl.conf` are persistent, you probably want to restore things to its previous state.