

# Linux Firewall

## CentOS 7

On CentOS 7, **firewall-cmd** is used to maintain the firewall.

### List All Rules

```
firewall-cmd --list-all
```

### Allow a port

This example allows a TCP port through the firewall, for all network interfaces in the "public" zone:

```
firewall-cmd --zone=public --add-port=3306/tcp --permanent
```

This example allows a UDP port through the firewall, for all network interfaces in the "public" zone:

```
firewall-cmd --zone=public --add-port=20202/udp --permanent
```

### Delete a rule

```
firewall-cmd --zone=public --remove-port=3306/tcp --permanent
```

### Reload the firewall

This makes the port changes active:

```
firewall-cmd --reload
```

If port changes are specified without the `--permanent` flag, they will be active, but not permanent. The following command makes them permanent:

```
firewall-cmd --runtime-to-permanent
```

# CentOS 6

On CentOS 6, **iptables** is used to maintain the firewall.

Caution: iptables is cryptic and sometimes rather stupid. Especially: it will add multiple rules for the same port, and does not check if the port is already open.

## List All Rules

```
iptables -L -n
```

The `-n` option causes the ports to be listed numerically.

Alternatively:

```
iptables-save > iptables_rules  
less iptables_rules
```

This method is particularly useful for cleaning up duplicated rules.

## Allow a port

This example allows a TCP port through the firewall:

```
iptables -I INPUT 4 -p tcp -m tcp --dport 3306 -j ACCEPT  
service iptables save
```

This example allows a UDP port through the firewall, for all network interfaces in the "public" zone:

```
iptables -I INPUT 4 -p tcp -m udp --dport 20202 -j ACCEPT  
service iptables save
```

## Reload the firewall

This makes the port changes permanent:

```
service iptables save
```

## Delete a rule

The simplest way to delete rules in iptables, is to save and restore the configuration:

First, save the rules:

```
iptables-save > iptables_rules
```

Now edit the rules:

```
vi iptables_rules
```

Now restore the rules, with the changes made, and make them permanent:

```
iptables-restore < iptables_rules  
service iptables save
```