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Linux setup default gateway with route command

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Q. How do I setup default gateway with a route command?

A. route command show and/or manipulate the IP routing table under Linux and UNIX oses.

Route manipulates the kernel's IP routing tables. Its primary use is to set up static routes to specific hosts or networks via an interface after it has been configured with the ifconfig program. When the add or del options are used, route modifies the routing tables. Without these options, route displays the current contents of the routing tables.

[1]

Display default route

Following three-command display the current routing table:

```
# route
```

Output:

```
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
192.168.1.0     *               255.255.255.0   U     0      0        0 ra0
default         dsl-router      0.0.0.0         UG    0      0        0 ra0
```

```
$ /sbin/route
```

Output:

```
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
191.255.255.0   *               255.255.255.0   U     0      0        0 eth0
169.254.0.0     *               255.255.0.0     U     0      0        0 eth0
default         191.255.255.1   0.0.0.0         UG    0      0        0 eth0
```

You can use -n option, to display numerical addresses instead of trying to determine symbolic host names (via dns or /etc/hosts file). This is useful if you are trying to determine why the route to your nameserver has vanished.

```
$ /sbin/route -n
```

Output:

```
Kernel IP routing table
Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
191.255.255.0   0.0.0.0         255.255.255.0   U     0      0        0 venet0
169.254.0.0     0.0.0.0         255.255.0.0     U     0      0        0 venet0
0.0.0.0         191.255.255.1   0.0.0.0         UG    0      0        0 venet0
```

Please note that a destionation entry 0.0.0.0 (or default) is the default gatway. In above example 191.255.255.1 is a default gatway.

Add / setup a new route

The syntax is as follows:
route add default gw {IP-ADDRESS} {INTERFACE-NAME}

Where,

- IP-ADDRESS: Specify router IP address
- INTERFACE-NAME: Specify interface name such as eth0

For example if your router IP address is 192.168.1.254 type the following command as the root user:

```
# route add default gw 192.168.1.254 eth0
```

OR use hostname such as dsl-router:

```
# route add default gw dsl-router eth0
```

Setting route using GUI tools/command under Linux

If you find above command hard to use, consider using GUI tools. If your are using Red Hat/CentOS/Fedora core Linux type following command:

```
# redhat-config-network
```

OR If you are using other Linux distribution use command:

```
# network-admin
```

See also

- [How to setup static routes under Debian and Fedora/Red Hat Linux](#) [2]

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