

# OEL 7 – How to disable IPv6 on Oracle Linux 7 – Follow Up

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This is a follow up to the Blog were I explained how to disable IPv6 on Oracle Linux 7.

If you have done all the steps which I have explained here <http://blog.dbi-services.com/oel-7-how-to-disable-ipv6-on-oracle-linux-7/> then you have already IPv6 successfully disabled. However, some tools require some special attention afterwards if you want to avoid some ugly warning or error messages. There are so many tools that can use IPv4 and IPv6, but it is impossible to mention all of them. I will just dig a little deeper into the following 4.

- Postfix
- Oracle
- NFS
- rsyslogd

## Postfix

Let's start with Postfix. This might be one of the first warning messages you see, in case you have disabled IPv6 on your system. If you receive the following warning message when you try to send an email, then you need to adjust your `/etc/postfix/main.cf` file.

```
1
2                                     $ mailx -s "Test" xxx.xxx@xxx.com
3
4                                     Test
5
6                                     .
7
8                                     EOT
9
10                                    $ send-mail: warning: inet_protocols: IPv6 support
```

```
6 is disabled: Address family not supported by
  protocol
7
8 send-mail: warning: inet_protocols: configuring for
  IPv4 support only

postdrop: warning: inet_protocols: IPv6 support is
disabled: Address family not supported by protocol

postdrop: warning: inet_protocols: configuring for
IPv4 support only
```

The solution is to configure your `/etc/postfix/main.cf` file to allow only the `ipv4` protocol.

```
1
2 [root@SVPCHODAC01 sbin]# /usr/sbin/postconf |
  grep inet_protocols
3 inet_protocols = all
4
5 /usr/sbin/postconf: warning: inet_protocols: IPv6
  support is disabled: Address family not supported by
  protocol
6
7 /usr/sbin/postconf: warning: inet_protocols:
  configuring for IPv4 support only
8
9 [root@SVPCHODAC01 sbin]# cd /etc/postfix/
10
11 [root@SVPCHODAC01 postfix]# cp main.cf
  main.cf.20170203a
```

```
[root@SVPCHODAC01 postfix]# vi main.cf
```

Change “inet\_protocols = all” to “inet\_protocols = ipv4” and then restart PostFix.

```
1 [root@SVPOCHODAC01 postfix]# /etc/init.d/postfix
2 restart
3
4 Shutting down postfix: [ OK ]
5
6 Starting postfix: [ OK ]
7
8 [root@SVPOCHODAC01 postfix]#
9 /usr/sbin/postconf | grep inet_protocols
10
11 inet_protocols = ipv4
```

That's it. Now the ugly Postfix warning messages disappear.

## Oracle

The next candidate is the Oracle Listener. In some situations, you might see the following error message in your listener.log file when working with Cloud Control 12c.

1	TNS-01189: The listener could not authenticate the user
---	---

This is related to an Oracle bug, to be more precise, it is “BUG 16054202 – TNLIN EXTRACTS WRONG SUBNETMASK FOR IPV6 ADDRESSES”. The bug can be fixed by configuring the Oracle Listener to work with IPv4 only. This is done via the listener.ora IP parameter, which knows the following options.

Listen on the first IP address returned by the DNS resolution of the host name.

IP=V4\_ONLY

IP=V6\_ONLY

Simply put the (IP=V4\_ONLY) after your PORT setting, and then restart the listener like shown in the following example.

```

7                                )
8                                (DESCRIPTION =
9                                (ADDRESS = (PROTOCOL = IPC)(KEY =
10                               EXTPROC1521))
11                               )
12                               )
13
14                               -- restart

                                $ lsnrctl stop LISTENER; lsnrctl start LISTENER

```

Now the messages “TNS-01189: The listener could not authenticate the user” in the listener.log should disappear.

## NFS

Under normal circumstances, no changes should be required for NFS unless you had proto=tcp6 configured for your mount options. If so, then your mount will not work anymore.

```

1                                [root@dbidg02 etc]# mount /u99
2
                                mount.nfs: an incorrect mount option was specified

```

And you will see the following error in the `/var/log/messages` file.

```
Feb 14 10:26:48 dbidg02 kernel: NFS: server
address does not match proto= option
```

Now you could either remove the proto option or change it to proto=tcp.

For NFS version 4 you have the following options:

proto=netid The netid determines the transport that is used to communicate with the NFS server. Supported options are tcp, tcp6, and rdma. tcp6 use IPv6 addresses and is only available if support for TI-RPC is built in. Both others use IPv4 addresses.

In my case, I have added the `proto=tcp` option to my NFS mount table in the `/etc/fstab`

```
1 #-- NFS mounts
2
3 dbidg03:/u99 /u99 nfs vers=4.1,proto=tcp,rw,bg,hard,
4 nointr,rsiz=32768,wsiz=32768,tcp,timeo=600
5
6 -- And now the mount works perfectly again.
7
8 [root@dbidg02 etc]# mount /u99
```

```

8 [root@dbidg02 etc]#
9 [root@dbidg02 etc]# mount | grep nfs
10 sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs
   (rw,relatime)
11 nfsd on /proc/fs/nfsd type nfsd (rw,relatime)

dbidg03:/u99 on /u99 type nfs4 (rw,relatime,vers=4.
1,rsz=32768,wsz=32768,namlen=255,hard,proto
=tcp,port=0,timeo=600,retrans=2,sec=sys,clientaddr
=192.168.56.202,local_lock=none,addr=192.168.56
.203)

```

Now the NFS mount works again.

## rsyslogd

Almost the same applies to the rsyslogd. In case you have not specified “-6” in your syslogd options, you are fine. If not, you need to either remove the option or replace it with “-4”

```

1 oracle@dbidg03:/etc/sysconfig/ [oms13c] rpm -qa |
2 grep rsyslog
3 rsyslog-7.4.7-16.0.1.el7.x86_64
4
5 -- from the doc

-4 Causes rsyslogd to listen to IPv4 addresses only.

```

If neither -4 nor -6 is given, rsyslogd listens to all configured addresses of the system.

```
1 [root@dbidg03 sysconfig]# cat rsyslog
2
3 # Options for rsyslogd
4
5 # Syslogd options are deprecated since rsyslog v3.
6
7 # If you want to use them, switch to compatibility
8 mode 2 by "-c 2"
9
10 # See rsyslogd(8) for more details
11
12 SYSLOGD_OPTIONS="-4"
13
14 [root@dbidg03 sysconfig]# systemctl restart rsyslog
15
16 [root@dbidg03 sysconfig]#
```

## Conclusion

There might be some tools on your system that requires special attention after you have disable IPv6 on your system.



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