



Objetivo:

→ Configuración IPv4 *server1.example.com* y *station1.example.com* Para: enp0s3

↳ Parámetros de conexión Ipv4: /etc/hosts:

192.168.1.150 *server1.example.com* *server1*

192.168.1.151 *station1.example.com* *station1*

→ Configurar **-SLAAC-** de forma permanente para las interfaces:

↳ server1 → enp0s8

↳ station1 → enp0s8

→ Realizar pinging's de *server1* a *station1* y de *station1* a *server1*

→ Establecer conexiones *ssh* para Ipv6.

+++++
(Tiempo máximo estimado → 15 minutos)...
+++++

↳ server1/station1

→ Construcción de conexiones. ↳ -eth8-.

[root@server1 network-scripts]# nmcli connection add type ethernet con-name eth8 ifname enp0s8 ipv6.method auto
Conexión 'eth8' (b51b0d78-1f5a-4106-bace-d481c093f00b) agregada con éxito.

[root@station1 network-scripts]# nmcli connection add type ethernet con-name eth8 ifname enp0s8 ipv6.method auto
Conexión 'eth8' (b33184d1-092b-489e-96dc-40153bca62f1) agregada con éxito.

[root@server1 network-scripts]# cat /etc/sysconfig/network-scripts/ifcfg-eth8
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=dhcp
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=eth8
UUID=b51b0d78-1f5a-4106-bace-d481c093f00b
DEVICE=enp0s8
ONBOOT=yes

[root@station1 network-scripts]# cat /etc/sysconfig/network-scripts/ifcfg-eth8
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=dhcp
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes



```
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=eth8
UUID=b33184d1-092b-489e-96dc-40153bca62f1
DEVICE=enp0s8
ONBOOT=yes
```

→ **Instalar -radvd- (Router Advertisement).**

```
[root@server1 network-scripts]# yum install radvd
```

```
[root@station1 network-scripts]# yum install radvd
```

→ **Configurar prefijos para -radvd-.**

```
[root@server1 network-scripts]# cp /etc/radvd.conf /etc/radvd.conf.original
```

```
[root@station1 network-scripts]# cp /etc/radvd.conf /etc/radvd.conf.original
```

```
[root@server1 network-scripts]# cat /etc/radvd.conf
```

```
# NOTE: there is no such thing as a working "by-default" configuration file.
#   At least the prefix needs to be specified. Please consult the radvd.conf(5)
#   man page and/or /usr/share/doc/radvd-*/radvd.conf.example for help.
#
#
interface enp0s8
{
    AdvSendAdvert on;
    MinRtrAdvInterval 30;
    MaxRtrAdvInterval 100;
    prefix 2001:db8:1:0::/64
    {
        AdvOnLink on;
        AdvAutonomous on;
        AdvRouterAddr off;
    };
};
```

```
[root@station1 network-scripts]# cat /etc/radvd.conf
```

```
# NOTE: there is no such thing as a working "by-default" configuration file.
#   At least the prefix needs to be specified. Please consult the radvd.conf(5)
#   man page and/or /usr/share/doc/radvd-*/radvd.conf.example for help.
#
#
interface enp0s8
{
    AdvSendAdvert on;
    MinRtrAdvInterval 30;
    MaxRtrAdvInterval 100;
    prefix 2001:db8:1:0::/64
    {
        AdvOnLink on;
        AdvAutonomous on;
        AdvRouterAddr off;
    };
};
```



};

→ **Habilitar -radvd-**

[root@server1 network-scripts]# systemctl enable --now radvd.service

Created symlink from /etc/systemd/system/multi-user.target.wants/radvd.service to /usr/lib/systemd/system/radvd.service.

[root@server1 network-scripts]# systemctl status radvd.service

```
● radvd.service - Router advertisement daemon for IPv6
  Loaded: loaded (/usr/lib/systemd/system/radvd.service; enabled; vendor preset: disabled)
  Active: active (running) since mié 2018-05-16 09:08:23 CEST; 16s ago
  Process: 2073 ExecStart=/usr/sbin/radvd $OPTIONS (code=exited, status=0/SUCCESS)
  Main PID: 2076 (radvd)
  CGroup: /system.slice/radvd.service
          └─2074 /usr/sbin/radvd -u radvd
            └─2076 /usr/sbin/radvd -u radvd
```

may 16 09:08:23 server1.example.com systemd[1]: Starting Router advertisement daemon for IPv6...

may 16 09:08:23 server1.example.com radvd[2073]: version 1.9.2 started

may 16 09:08:23 server1.example.com radvd[2073]: IPv6 forwarding setting is: 0, should be 1

may 16 09:08:23 server1.example.com radvd[2073]: IPv6 forwarding seems to be disabled, but continuing anyway.

may 16 09:08:23 server1.example.com systemd[1]: Started Router advertisement daemon for IPv6.

[root@station1 network-scripts]# systemctl enable --now radvd.service

Created symlink from /etc/systemd/system/multi-user.target.wants/radvd.service to /usr/lib/systemd/system/radvd.service.

[root@station1 network-scripts]# systemctl status radvd.service

```
● radvd.service - Router advertisement daemon for IPv6
  Loaded: loaded (/usr/lib/systemd/system/radvd.service; enabled; vendor preset: disabled)
  Active: active (running) since mié 2018-05-16 09:07:55 CEST; 10s ago
  Process: 2207 ExecStart=/usr/sbin/radvd $OPTIONS (code=exited, status=0/SUCCESS)
  Main PID: 2210 (radvd)
  CGroup: /system.slice/radvd.service
          └─2208 /usr/sbin/radvd -u radvd
            └─2210 /usr/sbin/radvd -u radvd
```

may 16 09:07:55 station1.example.com systemd[1]: Starting Router advertisement daemon for IPv6...

may 16 09:07:55 station1.example.com radvd[2207]: version 1.9.2 started

may 16 09:07:55 station1.example.com radvd[2207]: IPv6 forwarding setting is: 0, should be 1

may 16 09:07:55 station1.example.com radvd[2207]: IPv6 forwarding seems to be disabled, but continuing anyway.

may 16 09:07:55 station1.example.com systemd[1]: Started Router advertisement daemon for IPv6.

[root@server1 network-scripts]# ip addr show enp0s8

3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000

link/ether 08:00:27:c0:96:55 brd ff:ff:ff:ff:ff:ff

inet6 2001:db8:1:0:42e4:c206:f18:f8c0/64 scope global noprefixroute dynamic

valid_lft 86395sec preferred_lft 14395sec

inet6 fe80::4525:cd16:770a:b288/64 scope link noprefixroute



```
valid_lft forever preferred_lft forever
```

[root@station1 ~]# ip addr show enp0s8

```
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 08:00:27:79:36:11 brd ff:ff:ff:ff:ff:ff
    inet6 2001:db8:1:0:bae0:ecb2:179f:4b2a/64 scope global noprefixroute dynamic
        valid_lft 86370sec preferred_lft 14370sec
    inet6 fe80::f862:13a5:d73f:6eed/64 scope link
        valid_lft forever preferred_lft forever
```

→ **pinging's.**

[root@server1 ~]# ping6 -c2 2001:db8:1:0:42e4:c206:f18:f8c0

```
PING 2001:db8:1:0:42e4:c206:f18:f8c0(2001:db8:1:0:42e4:c206:f18:f8c0) 56 data bytes
64 bytes from 2001:db8:1:0:42e4:c206:f18:f8c0: icmp_seq=1 ttl=64 time=0.051 ms
64 bytes from 2001:db8:1:0:42e4:c206:f18:f8c0: icmp_seq=2 ttl=64 time=0.065 ms
```

```
--- 2001:db8:1:0:42e4:c206:f18:f8c0 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1015ms
rtt min/avg/max/mdev = 0.051/0.058/0.065/0.007 ms
```

[root@station1 ~]# ping6 -c2 2001:db8:1:0:42e4:c206:f18:f8c0

```
PING 2001:db8:1:0:42e4:c206:f18:f8c0(2001:db8:1:0:42e4:c206:f18:f8c0) 56 data bytes
64 bytes from 2001:db8:1:0:42e4:c206:f18:f8c0: icmp_seq=1 ttl=64 time=0.908 ms
64 bytes from 2001:db8:1:0:42e4:c206:f18:f8c0: icmp_seq=2 ttl=64 time=0.876 ms
```

```
--- 2001:db8:1:0:42e4:c206:f18:f8c0 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1003ms
rtt min/avg/max/mdev = 0.876/0.892/0.908/0.016 ms
```

[root@station1 ~]# ping6 -c2 2001:db8:1:0:bae0:ecb2:179f:4b2a

```
PING 2001:db8:1:0:bae0:ecb2:179f:4b2a(2001:db8:1:0:bae0:ecb2:179f:4b2a) 56 data bytes
64 bytes from 2001:db8:1:0:bae0:ecb2:179f:4b2a: icmp_seq=1 ttl=64 time=0.126 ms
64 bytes from 2001:db8:1:0:bae0:ecb2:179f:4b2a: icmp_seq=2 ttl=64 time=0.126 ms
```

```
--- 2001:db8:1:0:bae0:ecb2:179f:4b2a ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1005ms
rtt min/avg/max/mdev = 0.126/0.126/0.126/0.000 ms
```

[root@server1 ~]# ping6 -c2 2001:db8:1:0:bae0:ecb2:179f:4b2a

```
PING 2001:db8:1:0:bae0:ecb2:179f:4b2a(2001:db8:1:0:bae0:ecb2:179f:4b2a) 56 data bytes
64 bytes from 2001:db8:1:0:bae0:ecb2:179f:4b2a: icmp_seq=1 ttl=64 time=0.964 ms
64 bytes from 2001:db8:1:0:bae0:ecb2:179f:4b2a: icmp_seq=2 ttl=64 time=0.830 ms
```

```
--- 2001:db8:1:0:bae0:ecb2:179f:4b2a ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.830/0.897/0.964/0.067 ms
```

[root@server1 ~]# tracepath6 2001:db8:1:0:bae0:ecb2:179f:4b2a

```
1?: [LOCALHOST] 0.040ms pmtu 1500
1: 2001:db8:1:0:bae0:ecb2:179f:4b2a 1.026ms !A
1: 2001:db8:1:0:bae0:ecb2:179f:4b2a 0.982ms !A
Resume: pmtu 1500
```



[root@station1 ~]# tracepath6 2001:db8:1:0:42e4:c206:f18:f8c0

```
1?: [LOCALHOST] 0.039ms pmtu 1500
1: 2001:db8:1:0:42e4:c206:f18:f8c0 1.111ms !A
1: 2001:db8:1:0:42e4:c206:f18:f8c0 1.045ms !A
Resume: pmtu 1500
```

→ **ssh's.**

[root@server1 ~]# ssh -6 root@2001:db8:1:0:bae0:ecb2:179f:4b2a

The authenticity of host '2001:db8:1:0:bae0:ecb2:179f:4b2a (2001:db8:1:0:bae0:ecb2:179f:4b2a)' can't be established.

ECDSA key fingerprint is SHA256:tKrxWBBgusdB247Qs9CTfhQdhKro4etkZi3O+WGFK0I.

ECDSA key fingerprint is MD5:8e:e8:c9:59:e8:58:f3:f1:44:28:d9:aa:70:98:29:76.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added '2001:db8:1:0:bae0:ecb2:179f:4b2a' (ECDSA) to the list of known hosts.

Last login: Wed May 16 09:36:28 2018 from 192.168.1.250

[root@station1 ~]#

[root@station1 ~]# ssh -6 root@2001:db8:1:0:42e4:c206:f18:f8c0

The authenticity of host '2001:db8:1:0:42e4:c206:f18:f8c0 (2001:db8:1:0:42e4:c206:f18:f8c0)' can't be established.

ECDSA key fingerprint is SHA256:tKrxWBBgusdB247Qs9CTfhQdhKro4etkZi3O+WGFK0I.

ECDSA key fingerprint is MD5:8e:e8:c9:59:e8:58:f3:f1:44:28:d9:aa:70:98:29:76.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added '2001:db8:1:0:42e4:c206:f18:f8c0' (ECDSA) to the list of known hosts.

Last login: Wed May 16 09:35:51 2018 from 192.168.1.250

[root@server1 ~]#

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