



*“Si te gustó **-Bond, James-** (007), querrás mas a **-Team, Lamberto-** (008)”*

```
[root@station1 ~]# nmcli c s
```

NOMBRE	UUID	TIPO	DISPOSITIVO
enp0s3	a315dc76-a615-4f21-b27f-69ad3ddea132	802-3-ethernet	enp0s3
Conexión cableada 1	029a7c2d-5aec-36e8-be75-9fd9e4942f8d	802-3-ethernet	--
Conexión cableada 2	5c329502-a4c8-3b79-a7a4-b6fbd7fadab8	802-3-ethernet	--

```
[root@station1 ~]# mandb
```

...

[↘ Buscamos los 'runner's'](#)

```
[root@station1 ~]# man -k team
```

bond2team (1) - Converts bonding configuration to team  
teamd (8) - team network device control daemon  
**teamd.conf (5) - libteam daemon configuration file**  
teamdctl (8) - team daemon control tool  
teamnl (8) - team network device Netlink interface tool

```
[root@station1 ~]# man teamd.conf |grep runner
```

...

```
"runner": {"name": "activebackup"}
```

...

[↘ Creamos nuestro 'team0'](#)

```
[root@station1 ~]# nmcli connection add type team con-name team0 ifname team0 config '{"runner": {"name": "activebackup"}}'
```

Conexión 'team0' (9164a232-4bf2-403c-9fb2-87404fca20e6) agregada con éxito.

[↘ Creamos los puertos de conexión 'team0-port1' y 'team0-port2'](#)

```
[root@station1 ~]# nmcli connection add type team-slave con-name team0-puerto1 ifname enp0s8 master team0
```

Conexión 'team0-puerto1' (ff4919ad-8a2f-465e-8408-4ab88220b2ae) agregada con éxito.

```
[root@station1 ~]# nmcli connection add type team-slave con-name team0-puerto2 ifname enp0s9 master team0
```

Conexión 'team0-puerto2' (b1a8e14e-b276-46c2-a93d-eb7734f33325) agregada con éxito.

[↘ Comprobamos su 'state':](#)

```
[root@station1 ~]# nmcli c s
```

NOMBRE	UUID	TIPO	DISPOSITIVO
enp0s3	a315dc76-a615-4f21-b27f-69ad3ddea132	802-3-ethernet	enp0s3
<b>team0</b>	<b>9164a232-4bf2-403c-9fb2-87404fca20e6</b>	<b>team</b>	<b>team0</b>
team0-puerto1	ff4919ad-8a2f-465e-8408-4ab88220b2ae	802-3-ethernet	enp0s8
team0-puerto2	b1a8e14e-b276-46c2-a93d-eb7734f33325	802-3-ethernet	enp0s9



```
Conexión cableada 1 029a7c2d-5aec-36e8-be75-9fd9e4942f8d 802-3-ethernet --
Conexión cableada 2 5c329502-a4c8-3b79-a7a4-b6fbd7fadab8 802-3-ethernet --
```

```
[root@station1 ~]# teamdctl team0 state
```

```
setup:
  runner: activebackup
ports:
  enp0s8
  link watches:
    link summary: up
    instance[link_watch_0]:
      name: ethtool
      link: up
      down count: 0
  enp0s9
  link watches:
    link summary: up
    instance[link_watch_0]:
      name: ethtool
      link: up
      down count: 0
runner:
  active port: enp0s8
```

[↘ Down de 'team0' y deshabilitar 'NetworkManager' para que funcione el 'bridge':](#)

```
[root@station1 ~]# nmcli connection down team0
```

**La conexión 'team0' fue desactivada correctamente (ruta activa D-Bus: /org/freedesktop/NetworkManager/ActiveConnection/56)**

```
[root@station1 ~]# systemctl disable NetworkManager
```

```
Removed symlink /etc/systemd/system/multi-user.target.wants/NetworkManager.service.
Removed symlink /etc/systemd/system/dbus-org.freedesktop.NetworkManager.service.
Removed symlink /etc/systemd/system/dbus-org.freedesktop.nm-dispatcher.service.
```

```
[root@station1 ~]# ^disable^stop
```

```
systemctl stop NetworkManager
```

[↘ Añadimos al final de la configuración del 'team0', el 'brteam0' que crearemos a continuación:](#)

```
[root@station1 ~]# cd /etc/sysconfig/network-scripts/
```

```
[root@station1 network-scripts]# vim ifcfg-team0
```

```
DEVICE=team0
TEAM_CONFIG="{\"runner\": {\"name\": \"activebackup\"}}"
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=team0
UUID=9164a232-4bf2-403c-9fb2-87404fca20e6
ONBOOT=yes
DEVICETYPE=Team
BRIDGE=brteam0
```

[↘ Creamos el bridge → 'brteam0' de forma manual, y con una configuración mínima:](#)

```
[root@station1 network-scripts]# vim /etc/sysconfig/network-scripts/ifcfg-brteam0
ONBOOT=yes
DEVICE=brteam0
Type=Bridge
IPADDR=192.168.100.160
PREFIX=24
```

[↘ Por último reiniciamos y comprobamos todo:](#)

```
[root@station1 network-scripts]# systemctl restart network
```

... Se tomará un tiempo, ...

**Job for network.service failed because the control process exited with error code. See "systemctl status network.service" and "journalctl -xe" for details.**

```
[root@station1 network-scripts]# systemctl status network
```

- network.service - LSB: Bring up/down networking  
Loaded: loaded (/etc/rc.d/init.d/network; bad; vendor preset: disabled)  
Active: failed (Result: exit-code) since sáb 2018-04-21 11:47:56 CEST; 2min 0s ago  
Docs: man:systemd-sysv-generator(8)  
Process: 16381 ExecStop=/etc/rc.d/init.d/network stop (code=exited, status=0/SUCCESS)  
Process: 16588 ExecStart=/etc/rc.d/init.d/network start (code=exited, status=1/FAILURE)

```
abr 21 11:47:46 station1.example.com dhclient[17004]: DHCPDISCOVER on team0 to
255.255.255.255 port 67 interval 9 (xid=0x3724ece9)
abr 21 11:47:55 station1.example.com dhclient[17004]: No DHCPOFFERS received.
abr 21 11:47:55 station1.example.com network[16588]: Determinando la información IP para
team0... falló.
abr 21 11:47:55 station1.example.com network[16588]: [FALLÓ]
abr 21 11:47:56 station1.example.com network[16588]: Activando interfaz team0-puerto1: [ OK ]
abr 21 11:47:56 station1.example.com network[16588]: Activando interfaz team0-puerto2: [ OK ]
abr 21 11:47:56 station1.example.com systemd[1]: network.service: control process exited,
code=exited status=1
abr 21 11:47:56 station1.example.com systemd[1]: Failed to start LSB: Bring up/down
networking.
```



```
abr 21 11:47:56 station1.example.com systemd[1]: Unit network.service entered failed state.
abr 21 11:47:56 station1.example.com systemd[1]: network.service failed.
```

```
[root@station1 network-scripts]# cat /var/log/messages
```

```
...
Apr 21 11:47:56 station1 systemd: network.service failed.
Apr 21 12:00:02 station1 systemd: Starting LSB: Bring up/down networking...
Apr 21 12:00:02 station1 network: Activación de la interfaz de loopback: [ OK ]
Apr 21 12:00:02 station1 network: Activando interfaz brteam0: ERROR :
[/etc/sysconfig/network-scripts/ifup-eth] El dispositivo brteam0 no parece estar presente,
retrasando la iniciación.
Apr 21 12:00:02 station1 /etc/sysconfig/network-scripts/ifup-eth: El dispositivo brteam0 no parece
estar presente, retrasando la iniciación.
Apr 21 12:00:02 station1 network: [FALLÓ]
...
ERROR → No esta disponible el soporte para puentes.
```

### ↘ Troubleshoot.

```
[root@station1 network-scripts]# lsmod |grep bridge
```

```
bridge          136173  1 etable_brout
stp             12976   1 bridge
llc             14552   2 stp,bridge
```

```
[root@station1 network-scripts]# yum provides */brctl | grep bridge
```

```
...
bridge-utils-1.5-9.el7.x86_64 : Utilities for configuring the linux ethernet
...
```

```
[root@station1 network-scripts]# yum install bridge-utils -y
```

```
[root@station1 network-scripts]# systemctl restart network
```

```
bridge name      bridge id      STP enabled  interfaces
brteam0          8000.080027396f92  no          team0
```

```
[root@station1 network-scripts]# brctl stp brteam0 on
```

### Mejor Activamos → Spanning Tree Protocol (STP):

```
[root@station1 network-scripts]# brctl show
```

```
bridge name      bridge id      STP enabled  interfaces
brteam0          8000.080027396f92  yes          team0
```

```
[root@station1 network-scripts]# ifup brteam0
```

```
[root@station1 network-scripts]# ip a
```

```
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP
```



```
qlen 1000
  link/ether 08:00:27:04:14:89 brd ff:ff:ff:ff:ff:ff
  inet 192.168.100.151/24 brd 192.168.100.255 scope global enp0s3
    valid_lft forever preferred_lft forever
  inet6 fe80::a00:27ff:fe04:1489/64 scope link
    valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast master
team0 state UP qlen 1000
  link/ether 08:00:27:39:6f:92 brd ff:ff:ff:ff:ff:ff
  inet6 fe80::a00:27ff:fe39:6f92/64 scope link
    valid_lft forever preferred_lft forever
4: enp0s9: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast master
team0 state UP qlen 1000
  link/ether 08:00:27:39:6f:92 brd ff:ff:ff:ff:ff:ff
  inet6 fe80::a00:27ff:fe39:6f92/64 scope link
    valid_lft forever preferred_lft forever
5: team0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue master
brteam0 state UP qlen 1000
  link/ether 08:00:27:39:6f:92 brd ff:ff:ff:ff:ff:ff
  inet6 fe80::a00:27ff:fe39:6f92/64 scope link
    valid_lft forever preferred_lft forever
6: brteam0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state
UP qlen 1000
  link/ether 08:00:27:39:6f:92 brd ff:ff:ff:ff:ff:ff
  inet 192.168.100.160/24 brd 192.168.100.255 scope global brteam0
  valid_lft forever preferred_lft forever
  inet6 fe80::a00:27ff:fe39:6f92/64 scope link
  valid_lft forever preferred_lft forever
```

```
[root@station1 network-scripts]# ping -c2 192.168.100.160
PING 192.168.100.160 (192.168.100.160) 56(84) bytes of data.
64 bytes from 192.168.100.160: icmp_seq=1 ttl=64 time=0.039 ms
64 bytes from 192.168.100.160: icmp_seq=2 ttl=64 time=0.097 ms
```

```
--- 192.168.100.160 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.039/0.068/0.097/0.029 ms
```



## Creative Commons

### Reconocimiento-NoComercial-CompartirIgual 3.1 ESPAÑA

© 2018 by carlos briso. Usted es libre de copiar, distribuir y comunicar públicamente la obra y hacer obras derivadas bajo las condiciones siguientes:

a) Debe reconocer y citar al autor original.

b) No puede utilizar esta obra para fines comerciales (incluyendo su publicación, a través de cualquier medio, por entidades con fines de lucro).

c) Si altera o transforma esta obra o genera una obra derivada, sólo puede distribuir la obra generada bajo una licencia idéntica a ésta. Al reutilizar o distribuir la obra, tiene que dejar bien claro los términos de la licencia de esta obra. Alguna de estas condiciones puede no aplicarse si se obtiene el permiso del titular de los derechos de autor. Los derechos derivados de usos legítimos u otras limitaciones no se ven afectados por lo anterior. Licencia completa en castellano.

→ La información contenida en este documento y los derivados de éste se proporcionan tal cual son y los autores no asumirán responsabilidad alguna si el usuario o lector hace mal uso de éstos.