

bond mode 4 – агрегация сетевых интерфейсов

Сервер с CentOS 7, коммутатор D-Link DES 2810

Нужно сделать агрегацию каналов, с последующей нарезкой vlan-ов. Для этой цели в сервере стоит две одинаковые сетевые карточки и они подключены в свитч, который настроим позже.

Проверяем как увиделись карточки в системе:

```
# lspci | grep -i ether
04:00.0 Ethernet controller: Intel Corporation 82540EM Gigabit Ethernet Controller (rev 02)
04:01.0 Ethernet controller: Intel Corporation 82540EM Gigabit Ethernet Controller (rev 02)
04:02.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL-8100/8101L/8139 PCI Fast Ethernet Adapter (rev 10)
05:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller (rev 06)
```

Проверяем есть ли модуль в системе:

```
# lsmod | grep bonding
bonding 152656 0
```

Создаем конф файл ifcfg-bond0:

```
# vi /etc/sysconfig/network-scripts/ifcfg-bond0
```

```
DEVICE=bond0
NAME=bond0
TYPE=Bond
BONDING_MASTER=yes
IPV6INIT=no
MTU=9000
ONBOOT=yes
USERCTL=no
NM_CONTROLLED=no
```

IPADDR=192.168.113.84

PREFIX=24

GATEWAY=192.168.113.1

DNS1=127.0.0.1

DNS2=192.168.113.1

DNS3=8.8.8.8

DOMAIN=example.com

BOOTPROTO=none

BONDING_OPTS="mode=802.3ad xmit_hash_policy=layer2+3
lacp_rate=1 miimon=100"

Проверяем! Важно, что бы в секции в строке MAC адрес были не нули, так это будет означать, что обмен пакетами не происходит:

```
# cat /proc/net/bonding/bond0 | less
```

Ethernet Channel Bonding Driver: v3.7.1 (April 27, 2011)

Bonding Mode: IEEE 802.3ad Dynamic link aggregation

Transmit Hash Policy: layer2+3 (2)

MII Status: up

MII Polling Interval (ms): 100

Up Delay (ms): 0

Down Delay (ms): 0

802.3ad info

LACP rate: fast

Min links: 0

Aggregator selection policy (ad_select): stable

System priority: 65535

System MAC address: 00:07:e9:89:ce:75

Active Aggregator Info:

Aggregator ID: 1

Number of ports: 2

Actor Key: 9

Partner Key: 1

Partner Mac Address: 1c:af:f7:e1:b6:71

Slave Interface: enp4s0

MII Status: up

Speed: 1000 Mbps

Duplex: full

Link Failure Count: 2
Permanent HW addr: 00:07:e9:89:ce:75
Slave queue ID: 0
Aggregator ID: 1
Actor Churn State: none
Partner Churn State: none
Actor Churned Count: 0
Partner Churned Count: 0
details actor lacp pdu:
 system priority: 65535
 system mac address: 00:07:e9:89:ce:75
 port key: 9
 port priority: 255
 port number: 1
 port state: 63
details partner lacp pdu:
 system priority: 32768
 system mac address: 1c:af:f7:e1:b6:71
 oper key: 1
 port priority: 128
 port number: 25
 port state: 61

Slave Interface: enp4s1
MII Status: up
Speed: 1000 Mbps
Duplex: full
Link Failure Count: 3
Permanent HW addr: 00:07:e9:89:cb:45
Slave queue ID: 0
Aggregator ID: 1
Actor Churn State: none
Partner Churn State: none
Actor Churned Count: 0
Partner Churned Count: 0
details actor lacp pdu:
 system priority: 65535
 system mac address: 00:07:e9:89:ce:75
 port key: 9
 port priority: 255

```
port number: 2
port state: 63
details partner lacp pdu:
  system priority: 32768
  system mac address: 1c:af:f7:e1:b6:71
  oper key: 1
  port priority: 128
  port number: 26
  port state: 61
```

[https://access.redhat.com/documentation/en-us/red_hat_enterpri
se_linux/7/html/networking_guide/sec-
network_bonding_using_the_command_line_interface#sec-
Create_a_Channel_Bonding_Interface](https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/networking_guide/sec-network_bonding_using_the_command_line_interface#sec-Create_a_Channel_Bonding_Interface)

[Настройка Network Bonding с LACP между CentOS Linux 7.2 и коммутатором Cisco 3560G](#)