

VLAN

- VLAN
- Astra Linux
 -
 -
 - VLAN iproute2
 - networking



:

- Astra Linux Special Edition .10015-01 (1.7), .10015-10
- Astra Linux Special Edition .10015-17
- Astra Linux Special Edition .10015-37 (7.7)
- Astra Linux Special Edition .10015-03 (7.6)
- Astra Linux Special Edition .10152-02 (4.7)
- Astra Linux Special Edition .10015-01 (1.6)
- Astra Linux Special Edition .10015-16 . 1
- Astra Linux Special Edition .10015-16 . 2
- Astra Linux Special Edition .10265-01 (8.1)
- Astra Linux Common Edition 2.12

VLAN

VLAN (Virtual Local Area Network) — («») , , (2 OSI) (), , , , VLAN', , , .

, VLAN . , VLAN, . VLAN , , VLAN

VLAN — . , — 2 OSI. VLAN . VLAN . VLAN , .

VLAN, . VLAN , . , VLAN 3 OSI, , , , VLAN VLAN.

VLAN

, VLAN .

, , (frame). VLAN' . [IEEE 802.1Q](#). , VLAN'.

, VLAN **access**. VLAN' **trunk**.

VLAN :

- VLAN';
- - ;
- IP- ;
- , ;
- , () .

Astra Linux

Astra Linux VLAN networking. networking NetworkManager, :

```
sudo systemctl --now mask NetworkManager
```

[802.1Q](#) Linux.

```
sudo modprobe 8021q
```

, **vlan**.

```
sudo apt install vlan
```

VLAN iproute2

iproute , VLAN-.

VLAN-:

```
sudo ip link add link DEVNAME name VLANNAME type vlan id VLAN-ID
reorder_hdr on|off loose_binding on|off gvrp on|off ingress-qos-map FROM:TO
egress-qos-map FROM:TO
```

reorder-header (), VLAN, . , . , , , tc (traffic control) u32 .

loose-binding VLAN- .-, , down VLAN- down. , VLAN- .

gvrp , VLAN gvrp. .

ingress-qos-map egress-qos-map 802.1q skb (). , VLAN- 3 0 7. skb 32 .

VLAN- ip link show -d[etails].

```
$ip -details link show dev VLANNAME
19: VLANNAME@eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP
    link/ether 00:aa:92:08:18:a6 brd ff:ff:ff:ff:ff:ff
    vlan id 1 <REORDER_HDR>
    egress-qos-map { 0:7 1:7 2:7 3:7 4:7 5:7 6:7 7:7 }
```

VLAN- ip link set, type vlan.

```
sudo ip link set dev VLANNAME type vlan OPTION VALUE
```

VLAN-

```
sudo ip link del VLANNAME
```

man ip link.

networking

```
auto <InterfaceName>                                     #
iface <InterfaceName> inet manual                         #

auto <InterfaceName>.<VLAN ID>
iface <InterfaceName>.<VLAN ID> inet static
vlan_raw_device <InterfaceName>                         # vlan_raw_device
    address ....
    netmask ....
```

VLAN' Astra Linux , , /etc/network/interfaces.

, VLAN' , /etc/network/interfaces.

:

```
auto vlan1400
iface vlan1400 inet static
    address 192.168.1.1
    netmask 255.255.255.0
    vlan_raw_device eth0
```

, eth0.1400, vlan1400:

```
auto eth0.1400
iface eth0.1400 inet static
    address 192.168.1.1
    netmask 255.255.255.0
    vlan_raw_device eth0
```

, — vlan_raw_device. , vlan1400.

1400 , VLAN ID .