

USB- c USB-over-IP

:



USB- USB-over-IP. , :

- USB- ()....
- , ;

USB-over-IP , .

, , , busid, .



:

- 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)
- [20200327SE16 \(5\)](#)
- Astra Linux Special Edition .10015-16 . 1
- [20201007SE16](#)
- Astra Linux Common Edition 2.12

linux-tools . :

```
sudo apt install linux-tools-`uname -r`
```

, :

```
sudo modprobe usbip-core
sudo modprobe usbip-host
sudo modprobe vhci-hcd
```

, /etc/modules-load.d/ , , /etc/modules-load.d/usb-over-ip-load.conf, :

/etc/modules-load.d/usb-over-ip-load.conf

```
usbip-core
usbip-host
vhci-hcd
```

:

```
sudo usbipd -D
```

, usbipd , :

1. /etc/systemd/system/usbipd.service :

```
[Unit]
Description=USBIPd

[Service]
ExecStart=/usr/bin/usbipd -D
Type=oneshot
RemainAfterExit=yes

[Install]
WantedBy=multi-user.target
```

2. :

```
sudo systemctl daemon-reload
sudo systemctl enable usbipd
```

USB -:

```
usbip list -l
```

```
busid 1-2 (03f0:4c17)
Hewlett-Packard : EWS UPD (03f0:4c17)
```

busid .



/usr/share/hwdata/usb.ids, /usr/share/hwdata/ :

```
sudo mkdir -p /usr/share/hwdata
sudo ln -s /var/lib/usbutils/usb.ids /usr/share/hwdata/usb.ids
```

usbipd, :

```
sudo usbip bind -b <bus ID >
```



, usbipd 3240.

, , :

```
usbip list -r localhost
```

:

```
sudo apt install linux-tools-`uname -r`
```

:

```
sudo modprobe usbip-core
sudo modprobe vhci-hcd
```

, .

, , :

```
sudo usbip list -r IP--
```

```
Exportable USB devices
```

```
=====
```

```
- 192.168.122.45
```

```
3-1: Aktiv : Rutoken ECP (0a89:0030)
```

```
: /sys/devices/pci0000:00/0000:00:05.1
```

```
/usb3/3-1
```

```
: (Defined at Interface level) (00/00/00)
```



/usr/share/hwdata/usb.ids, /usr/share/hwdata/ :

```
sudo mkdir -p /usr/share/hwdata
sudo ln -s /var/lib/usbutils/usb.ids /usr/share/hwdata/usb.ids
```

USB- :

```
sudo usbip attach -r <server> -b <bus ID>
```

, / mount/umount , .

:

1. , :

```
sudo usbip port
```

00.

2. (00,):

```
sudo usbip detach -p 00
```