

Содержание

An individual configuration file is used to define each bandwidth control policy. This file specifies bandwidth limits for protocol classes (groups). The method is similar to [overall bandwidth control](#)).

[fdpi_ctrl](#) utility applies the configured policies to subscribers.

The format of the instruction:

```
fdpi_ctrl команда --policing файл_описания_полисинга [список_IP]
```

Instructions' syntax and IP addresses specification methods are described in details here: [Control instructions](#).

The First Example:

We intend to offer our subscribers the plan for 10 Mb/s with torrent bandwidth limit of 3 Mb/s.

To accomplish the goal we create a class for torrents as described in [Configuring priorities](#).

```
bittorrent    cs1
default       cs0
```

We split the traffic into 2 classes for this example:

cs0 - corresponds to DSCP=0 QOS(IPP)=0 Best Effort

cs1 - corresponds to DSCP=8 QOS(IPP)=1 Priority

We create the configuration file `rateplan_1.cfg`. It specifies bandwidth limits for each of 8 protocol classes (groups). We use HTB (the method of borrowing available bandwidth) and specify the bandwidth limit for torrents 3 Mb, but not smaller than 1 Mb. Unlike torrents, other traffic may take the whole available bandwidth.

```
htb_inbound_root=rate 10mbit
htb_inbound_class0=rate 8bit ceil 10mbit
htb_inbound_class1=rate 1mbit ceil 3mbit
htb_inbound_class2=rate 8bit ceil 10mbit
htb_inbound_class3=rate 8bit ceil 10mbit
htb_inbound_class4=rate 8bit ceil 10mbit
htb_inbound_class5=rate 8bit ceil 10mbit
htb_inbound_class6=rate 8bit ceil 10mbit
htb_inbound_class7=rate 8bit ceil 10mbit
htb_root=rate 10mbit
htb_class0=rate 8bit ceil 10mbit
htb_class1=rate 1mbit ceil 3mbit
htb_class2=rate 8bit ceil 10mbit
htb_class3=rate 8bit ceil 10mbit
htb_class4=rate 8bit ceil 10mbit
htb_class5=rate 8bit ceil 10mbit
htb_class6=rate 8bit ceil 10mbit
htb_class7=rate 8bit ceil 10mbit
```

`htp_inbound_root`, `htb_root` are the root classes that define the overall bandwidth for inbound and outbound traffic. The bandwidth is distributed within these classes.

rate - is the minimal bandwidth

ceil - is the maximum bandwidth that can be borrowed from the root class if available
class2-7 would not be used as we configure two classes only: 0 and 1.

Here we assign the configured policy to subscribers that use this plan:

```
fdpi_ctrl load --policing rateplan_1.cfg --file  
subscribers_with_rateplan_1.txt
```

The Second Example:

Let us assign the plan from the previous example to a subscriber with several IPs.

Check that BD support is enabled in dpi /etc/dpi/fastdpi.conf:

```
udr=1
```

If it is not enabled: we enable it and restart DPI: service fastdpi restart

We reserve for corporate subscriber all his IPs:

```
fdpi_ctrl load --bind_multi --user  
000_PizzaJohnes:192.168.0.1-192.168.0.5,192.168.1.10-192.168.1.25
```

The subscriber's IP list can be modified [dynamically](#) (i.e. add new IPs and delete it).

We assign the bandwidth limits according to the plan:

```
fdpi_ctrl load --policing rateplan_1.cfg --login 000_PizzaJohnes
```

For advanced users: We advise to learn how to [control outbound traffic via feedback loop](#).