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# Traffic policing management. Named policing profiles

Policing profiles are created, modified, and deleted using the `fdpi_ctrl` utility.

Policing profiles are divided into two types:

- **Anonymous (unnamed) profiles** — the policing profile is not created in advance; its parameters are specified when the service is assigned to a subscriber, either in JSON format or as a policing configuration file
- **Named profiles** — the policing profile is created before being assigned to a subscriber and is stored in the internal DPI database — [Database Administration: UDR and SDR](#)

**Named profiles** have the following advantages over anonymous profiles:

1. Simplify subscriber administration
2. Allow finding subscribers with a required profile by profile name
3. Allow updating the profile for all subscribers using a given profile simply by changing the profile parameters
4. Allow controlling the limit on the number of unique profiles (maximum 65535)

**Anonymous (unnamed) profiles**, in turn, have the following advantages:

1. No profile management is required (there is no need to create or delete profiles); the profile is automatically removed when the subscriber or the subscriber's profile is deleted
2. No profile name needs to be invented

## Command syntax

General command format:

```
fdpi_ctrl command --policing policing_description_file [IP_list]
[LOGIN_list]
```

Command parameter description:

Parameter	Description, possible values, and format	Note
command	Values: 1. load — load data 2. del — delete 3. list — display information for the specified IP_list or all information if the all argument is specified.	In the list and del commands, all can be specified instead of an IP/LOGIN list, meaning the command is applied to all entries.
policing_description_file	File in cfg format, for example: tbf.cfg	

Parameter	Description, possible values, and format	Note
IP_list	Values: 1. <code>-file</code> — file containing a list of IP addresses 2. <code>-ip</code> — single IP address, format: 192.168.0.1 3. <code>-ip_range</code> — IP address range (inclusive), format: 192.168.0.1-192.168.0.5 4. <code>-cidr</code> — CIDR notation, format: 192.168.0.0/30, 5. 200.43.0/24~ (CIDR notation with excluded boundary addresses)	The first and last addresses can be excluded from a CIDR range (according to classless addressing conventions, these are the gateway and broadcast addresses) by adding the ~ character to the end of the CIDR definition, for example: <code>-cidr 5.200.43.0/24~</code>
LOGIN_list	Values: 1. <code>-file</code> — file containing a list of logins 2. <code>-login</code> — single login, format: USER1, "FIRST_NAME LAST_NAME" (login specified with escaped special characters)	"USER1" — login specified in double quotes 'USER2' — login specified in single quotes



A line beginning with the # character is treated as a comment.

## Creating, assigning, and removing policing profiles

Creating a named policing profile and assigning it to a subscriber:

```
fdpi_ctrl load profile --policing ./rate_10Mbps.cfg --profile.name
rate_10Mbps
fdpi_ctrl load --policing --profile.name rate_10Mbps --ip 192.168.0.1
fdpi_ctrl load --policing --profile.name rate_10Mbps --login test
```



Information on command result

Assigning an anonymous policing profile using a policing configuration file:

```
fdpi_ctrl load --policing rate_10Mbps.cfg --ip 192.168.0.1
fdpi_ctrl load --policing rate_10Mbps.cfg --login test
```

Removing policing for a specific subscriber:

```
fdpi_ctrl del --policing --ip 192.168.0.1
```

```
fdpi_ctrl del --policing --login test
```

## Policing management commands

Display a list of all created and applied policing profiles:

```
fdpi_ctrl list all --policing
```

Display a list of all subscribers by policing profile name:

```
fdpi_ctrl list all --policing --profile.name rate_10Mbps
```

Display information for a specific subscriber:

```
fdpi_ctrl list --policing --ip 192.168.0.1  
fdpi_ctrl list --policing --login test
```

Delete a named profile (the profile must not be assigned to any subscribers before deletion):

```
fdpi_ctrl del profile --policing --profile.name rate_10Mbps
```

Display the settings of a policing profile (tariff plan) by name:

```
fdpi_ctrl list profile --policing --profile.name rate_10Mbps
```

Change the policing settings from the daytime profile (10 Mbps) to the nighttime profile (20 Mbps). The new settings are immediately applied to all subscribers using the specified policing profile:

```
fdpi_ctrl load profile --policing ./rate_20Mbps_night.cfg --profile.name  
rate_10Mbps
```