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10 DPI vertical scaling

SCAT may need to be upgraded to a newer version due to increased volume of transit traffic. But this will require upgrading both the license and equipment. In case if a suitable hardware platform was originally chosen, the CPU upgrade and increasing the amount of RAM and network cards will be enough. And moreover the license upgrade plays into the calculation the cost of existing one.

OThe key platform parameters (the number of sessions, adresses, subscribers an so on) are adjusted along with the following setting:

```
scale_factor=1
```

where the number roughly corresponds to the channel width in in gigabytes.

In some cases it may be required to add a number of processed subscribers without increasing the traffic volume. In this case the following setting will do the trick:

```
mem_ip_metadata_recs=500000
```

где число указывает максимальное количество создаваемых абонентских профилей, проконсультируйтесь с тех. описанием платформы на какой максимальный размер абонентской базы она рассчитана. Не стоит указывать значительно большее количество, чем вам необходимо.

In SCAT-40 and higher the method of vertical scaling [1] is used named as a multicluster. In fact a 2-clusters it's like 2 dpi servers in one process. Each has its own set of ports, workflows, etc. but there are general data. A result symmetric traffic is not required as in the case of horizontal scaling. If you look at the hardware configuration of the server SCAT-40 is like two SCAT-20, but with one CPU, and SCAT-80 is four SCAT-20.

When configuring a multicluster, you need to specify the distribution of network interfaces over clusters:

```
in_dev = dna0 | dna2
out_dev = dna1 | dna3
```

here,
the sign | separates pairs of interfaces related to different clusters
dna0 ↔ dna1 is the pair of the first cluster
dna2 ↔ dna3 is the pair of the second cluster

[1]
scaling within a single server