

SCAT DPI



The System of Control and Analysis of Traffic

Opportunities of the traffic analysis, classification, and processing in SCAT allow communications operators to solve complex tasks of controlling the channel capacity, protection against network attacks, and compliance with regulations. The system is developed taking into account the specifics of the Russian communications market and includes a number of unique features.

About the Product

SCAT DPI is a deep traffic analysis platform developed for the purposes of inspection and classification of packets with their subsequent processing according to the tasks set by the company.

This software solution does not depend on a particular provider of the server hardware, so it can be flexibly adapted to the business requirements. Unlike the competing solutions, SCAT DPI guarantees high performance at the very attractive price.

Features

Apart from DPI functions, the product has a number of additional integrated functions.

The system includes traffic filtering according to the register of blacklisted sites in accordance with the laws of **FZ-139**, **FL-187**, **FL-398**, with automatic uploading of lists of

Roskomnadzor and the Ministry of Justice. For greater flexibility, personal blacklists are also available.

The system allows to notify subscribers about new offers of the operator and alert them of the planned works in the network by redirecting the user to a special content page. The information about such transition is stored in SCAT, thus making alerts non-intrusive. The system also has integrated protection against **DoS** and **DDoS** attacks. For this purpose, mechanisms to control TCP SYN Flood and fragmented UDP Flood are implemented; besides, the Turing test and dynamic bandwidth management with priorities according to the protocols are supported as well.

SCAT provides up to 30% savings on the uplink channels and fast delivery of audio and video content thanks to the caching system. Thus, caching of such services as VKontakte, Youtube, rutube, and Windows updates is fully available. The latest program version has extended catching function allowing to control the torrents by hash value, which significantly reduces the torrent traffic on the uplink channels.

Integration

Different usage scenarios are

available with this program solution, as SCAT can be connected "in break" or on the traffic mirror. Also, for realization of the filtering function according to the lists, connection with asymmetric PBR function can be used.

The system supports integration with billing and Radius server.

Analytics

SCAT provides several types of analytical information on the Netflow protocol:

- Allocation of the band according to application protocols
- Allocation of the band according to autonomous systems (AS)
- Download of the summary information in billing by classes for each subscriber
- Download of the full netflow according to subscribers

All specified above modes can run simultaneously.

Using the summary information for billing by classes for each subscriber allows to set separately tariffs upon sip, skype, and torrent traffic.

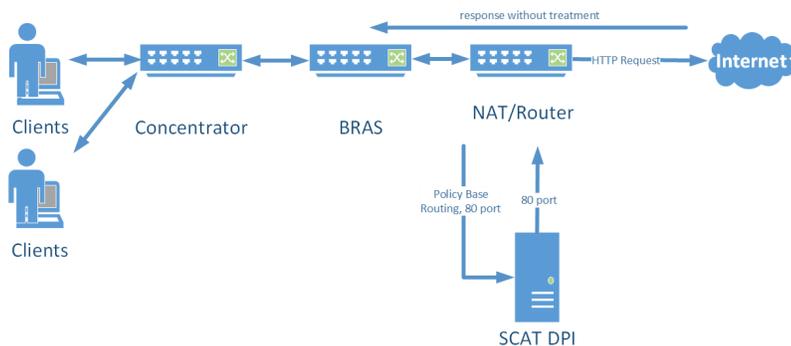
Key Functions

- Detection of over 6000 protocols
- Filtering by the registry of blacklisted websites
- Traffic catching
- Protection against DoS and DDoS attacks
- Connection "in break"
- Installation on the available server platforms

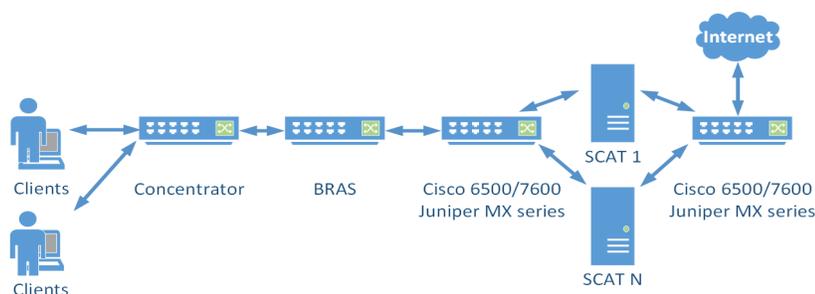


Typical connection schemes:

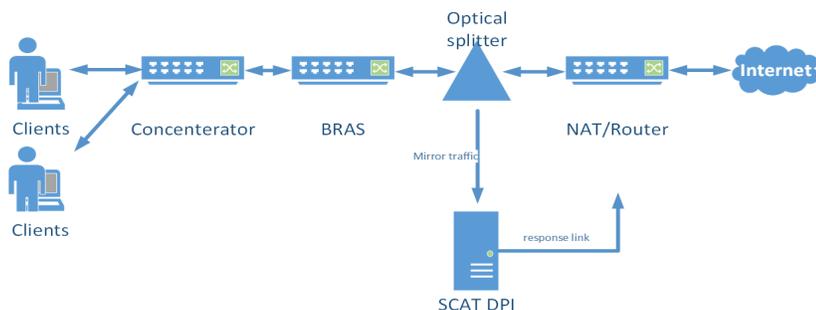
Asymmetric traffic processing for filtering



Connection of several SCAT according to the symmetric hash scheme, for processing over 160GbE



Traffic mirroring: removal of clickstream in real mode, forwarding of blocking requests, implementation of the bonus program, caching, pre-filtering SORM



Additional components

CACHE server: caches video and software updates. The connection scheme is similar to the web-service and does not require connection “in break”.

Event monitor Radius.

Ensures functioning DPI in networks with dynamic distribution of IP addresses, can control the cluster of DPI servers.

Module of browsing statistics and reports.

Netflow to collect and display statistics. It supports collection of information from DPI cluster and on-line display mode. Produces graphs and reports on destinations and protocols.

SCAT options in different variants of delivery

	Entry	Base	Complete
Bypass support	+	+	+
Filtering by the register of blacklisted websites	+	+	+
Collecting and analysis of statistics according to protocols and destinations	-	+	+
Marking the traffic priority in accordance with the protocol	-	+	+
Optimization of the use of external access channels	-	+	+
Notification of subscribers	-	+	+
Lawful interception	-	+	+
Distribution of the access channel between subscribers	-	-	+
Advertising blocking and replacement	-	-	+
Whitelist and Captive Portal	-	-	+
Protection against DOS and DDOS attacks	-	-	+
Catching	Licensed separately		