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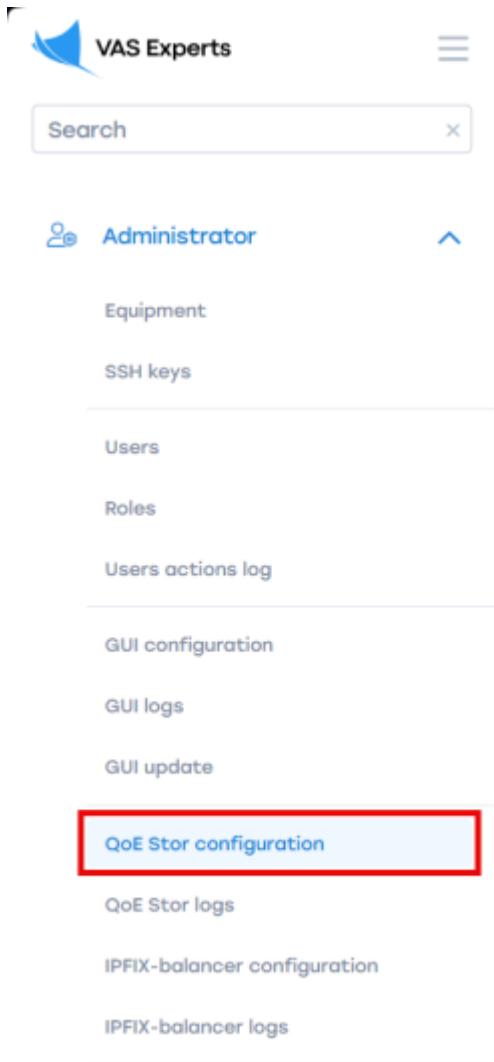
# NAT Flow Configuration

There are 3 ways to generate a NAT log in QoE Stor (statistics server)

1. Receive NAT Flow in a separate flow with DPI. To do this, you need to configure the DPI on the device [export of broadcasts to external collectors](#);
2. Get NAT Flow from Netstream third party systems (non DPI);
3. Form NAT Flow from FullFlow using QoE Stor/

## Configuring receiving a separate NAT Flow with DPI or NETSTREAM

- Go to: Main Menu → Administrator → QoE Stor Server Configuration → QoE Stor Server Configuration.



- Go to the "Receivers" section; add a new receiver; select "Receiver type" - NAT Flow; fill in the form for adding a receiver and click the "Apply" button;

The screenshot shows the QoE Stor configuration interface. On the left, there's a sidebar with various settings like Filtration, Common, Ulr settings, etc. The 'Receivers' tab is selected. In the main area, under 'Receiver type', 'NAT flow' is chosen. There are several configuration options: Port type (tcp), Port (1500), Rotate in minutes (10), Rotate in seconds (0), Queue size (10), Insert processes number (0), DPI ID (-1), Balancer (Disabled), Balancer subreceivers (10.0.0.2/9920,tcp,10.0.0.3/3440/l), Balancer subreceivers type (tcp), Balancer auto (Disabled), and Balancer core number (0). Below this is a table with three rows of data. At the bottom right of the configuration area are 'Cancel' and 'Apply' buttons.

- Go to the section of the form "NAT log settings"
- Enable populate IP-LGIN binding from fullflow (FILL\_IP\_LOGIN\_BINDING\_FROM\_FULLFLOW);
- Enable adding LOGIN to NAT log from binding IP-LGIN (NAT\_ADD\_LOGIN\_FROM\_IP\_LOGIN\_BINDING).

The screenshot shows the QoE Stor configuration interface. The 'NAT log settings' tab is selected in the sidebar. In the main area, there are two sections with dropdown menus: 'Import NAT events from fullflow (NAT\_IMPORT\_FROM\_FULLFLOW)' and 'Fields to save when aggregating NAT log (NAT\_AGG\_LOG\_FIELDS\_TO\_SAVE\_BITMASK)'. Below these are sections for 'Time interval for aggregating NAT logs (NAT\_AGG\_LOG\_GROUP\_TIME\_INTERVAL)' (set to 15 minutes) and 'Enable filling IP-LGIN bind from fullflow (FILL\_IP\_LOGIN\_BINDING\_FROM\_FULLFLOW)' (Enabled). Another section below it is 'Enable adding LOGIN to NAT log from IP-LGIN binding (NAT\_ADD\_LOGIN\_FROM\_IP\_LOGIN\_BINDING)' (Enabled). At the bottom is a section for 'Use distributed IP-LGIN binding table (NAT\_USE\_DISTR\_IP\_LOGIN\_BINDING)'.

## Enabling import of NAT events from FullFlow

To enable import of events from FullFlow transmitted from DPI to QoE Stor:

- Go to: Main Menu → Administrator → QoE Stor Server Configuration → QoE Stor Server Configuration;

VAS Experts

Administrator

- Equipment
- SSH keys
- Users
- Roles
- Users actions log
- GUI configuration
- GUI logs
- GUI update
- QoE Stor configuration**
- QoE Stor logs
- IPFIX-balancer configuration
- IPFIX-balancer logs

- Import NAT events from fullflow (NAT\_IMPORT\_FROM\_FULLFLOW) - Enable.

Administrator > QoE Stor configuration

Configuration

NAT log settings

Import NAT events from fullflow (NAT\_IMPORT\_FROM\_FULLFLOW)  
Enabled

Fields to save when aggregating NAT log (NAT\_AGG\_LOG\_FIELDS\_TO\_SAVE\_BITMASK)  
0x1 - Protocol ID, 0x2 - Event type, 0x4 - Source IPv4, 0x8 - Source port, 0x10 - Destination IPv4, 0x20 - Destination port, 0x40 - Post NAT

Time interval for aggregating NAT logs (NAT\_AGG\_LOG\_GROUP\_TIME\_INTERVAL)  
16 minutes (By default)

Enable filling IP-LINK bind from fullflow (FILL\_IP\_LOGIN\_BINDING\_FROM\_FULLFLOW)  
Enabled

Enable adding LOGIN to NAT log from IP-LINK binding (NAT\_ADD\_LOGIN\_FROM\_IP\_LOGIN\_BINDING)  
Enabled

Use distributed IP-LINK binding table (NAT\_USE\_DISTR\_IP\_LOGIN\_BINDING)

ONLINEFLOW log settings

DNS AGG log settings

OpenCellID settings

GTP settings

UPLINK LOAD RATE settings

Kaspersky list of infected hosts

Cluster settings

# NAT Flow aggregation

Go to: Main Menu → Administrator → QoE Stor Server Configuration → QoE Stor Server Configuration;

The screenshot shows the VAS Experts administrator interface. The top bar includes the VAS Experts logo and a search bar. The left sidebar is titled "Administrator" and contains the following items:

- Equipment
- SSH keys
- Users
- Roles
- Users actions log
- GUI configuration
- GUI logs
- GUI update
- QoE Stor configuration** (this item is highlighted with a red rectangle)
- QoE Stor logs
- IPFIX-balancer configuration
- IPFIX-balancer logs

Select "NAT log settings" → Select fields to save during NAT log aggregation, Log filling time interval (15 minutes by default);

The screenshot shows the VAS Experts application interface. The left sidebar contains a navigation tree with categories like SSG control, PCRF control, QoE analytics, VAS cloud services, and Administrator (which is expanded to show Equipment, Users, Roles, GUI configuration, GUI logs, and GUI update). Under the Administrator category, 'QoE Stor configuration' is selected and highlighted in blue. The main content area has a header 'Administrator > QoE Stor configuration'. On the left, there's a 'QoE Stor nodes' tree view with 'QoE Stor' selected. The right side shows the 'Configuration' tab for 'QoE Stor'. A red box highlights the 'Fields to save when aggregating NAT log (NAT\_AGG\_LOG\_FIELDS\_TO\_SAVE\_BITMASK)' section, which contains the value '0x4 - Source IPv4, 0x10 - Destination IPv4, 0x20 - Destination port, 0x40 - Post NAT source IPv4, 0x200 - Login'. Other sections visible include 'NAT log settings', 'Import NAT events from fullflow (NAT\_IMPORT\_FROM\_FULLFLOW)', 'Enabled', 'Time interval for aggregating NAT logs (NAT\_AGG\_LOG\_GROUP\_TIME\_INTERVAL)', '15 minutes (By default)', 'Enable filling IP-LOGIN bind from fullflow (FILL\_IP\_LOGIN\_BINDING\_FROM\_FULLFLOW)', 'Enable adding LOGIN to NAT log from IP-LOGIN binding (NAT\_ADD\_LOGIN\_FROM\_IP\_LOGIN\_BINDING)', and 'Use distributed IP-LOGIN binding table (NAT\_USE\_DISTRIP\_LOGIN\_BINDING)'. The bottom left corner displays the version 'Version 2.31.2 S'.