Содержание

BRAS L2 DHCP: subscriber session

Start of Session

The beginning of the user session is considered to be DHCPACK response of DHCP server to the client DHCPREQUEST/DHCPINFORM request. FastDPI BRAS extracts from the request and response following information:

- user MAC address
- user IP address
- user VLAN/Q-in-Q identifiers

and stores it in the UDR.

This information further is used to "authenticate" any user packet as well as to terminate/originate the traffic.

End of Session

The end of the user session is considered to be the reception of DHCPRELEASE or DHCPDECLINE DHCP requests. If the user session is completed any packets from this user will be dropped.

Session Status

User session can be in one of three states:

- Active – DHCPACK response is received successfully to the request of IP address - DHCPREQUEST
- Closed – DHCPRELEASE/DHCPDECLINE request of IP address releasing is received
- Unknown – IP address leasing request did not pass over the fastDPI. Sessions reside in this state when the fastDPI restarts.

Troubleshooting

When the fastDPI starts the user session is in the unknown state since there are no DHCP requests from user being received by the BRAS relay agent, however the user can already have the IP address previously assigned. In order to avoid any troubles to subscribers the unknown state is considered to be as a normal start session, but the session properties - MAC address and VLAN/Q-in-Q identifiers are fetched from the UDR. This can cause some troubles in the following cases:

- When changing network topology: in case the user VLAN/Q-in-Q identifiers has been changed as a result of some operator's activity;
- When the user replaces the equipment – its MAC address may change;

- When a new user is added – there is no corresponding entry for this user in the UDR;
- When implementing the fastDPI BRAS – in this case the UDR database still does not have the necessary user attributes - its MAC addresses and VLAN/Q-in-Q identifiers.

These troubles can be fixed by manual editing the UDR using the fdpi_ctrl utility.

In regular operating mode the fastDPI BRAS monitors the DHCP traffic and extracts MAC address and subscriber's VLAN tags from it, then the fastDPI BRAS stores the extracted information in the UDR database, so there is no need to edit it manually.