Содержание

Changelog of SSG BETA-version

Changes in version 14.0 BETA1

1. [BRAS] Support for L2TP termination
2. [BRAS] Support for DHCP-Dual
3. [DPI] Migration to DPDK 24.11, support for new NICs (Intel E830 200G, Intel E630, Napatech SmartNIC)
4. [CLI] Added support for `subs_id` in commands: `dhcp show`, `dhcp reauth`, `dhcp6 show`, `dhcp6 reauth`, and `dhcp disconnect`

Changes in version 14.0 BETA2

1. [DPI] New protocols added: AGORA_STREAMS(49314), AZAR_CALL(49315), WECHAT_CALL(49316), TEAMS_CALL(49317). List of protocols
2. [DPI] Improved support for LINE_CALL, VYKE_CALL protocols. List of protocols
3. [DPI] Fixed smartdrop behavior
4. [DPI] Added validation for complex protocols. List of protocols
5. [DPDK] Increased the maximum number of dispatchers to 32
6. [IPFIX/Netflow] Added the ability to change IPFIX/Netflow parameters without restarting fastDPI. A new config parameter `ipfix_reserved` has been added to reserve memory for enabling/changing IPFIX/Netflow parameters. If IPFIX/Netflow parameters are set in the configuration file, memory reservation for IPFIX/Netflow is automatically enabled and parameters/new exporter types can be changed without restarting fastDPI.
7. [FastRadius] It is now possible to set both `bind_ipv6_address` and `bind_ipv6_subnet`. If the Framed-IPv6-Prefix has a /128 mask, it is not checked against the `bind_ipv6_subnet` restriction.
8. CLI command `dev info` now includes the name of the LAG that the port belongs to
9. [PCRF][PPP][Framed-pool] Added: DHCP option `Client-Id` now includes `tunnel-IP` as part of the subscriber ID. Format of DHCP option `Client-Id` with fastpcrf.conf option dhcp_client_id=1 is as follows:

```
[conntype][subs_id][tunnel_ip]

conntype = 1 (1 byte)
subs_id  - 16 bytes
tunnel_ip - 4 bytes
```

   Tunnel IP is available in L2TP; for PPPoE, tunnel IP = 0.

10. [IPFIX] Message aggregation added for IPFIX streams: FullFlow/DNS/META/NAT
11. [IPFIX] Added parameter `ipfix_mtu_limit` to restrict maximum message size for IPFIX UDP packets
12. [IPFIX DNS] New elements added to IPFIX DNS: 224 (ipTotalLength) and 43823:3206 (DNS transaction id)
13. [VRRP] Fixed proper handling of the `vrrp_enable` option change
14. [BRAS][PPP] PPP session key is now compound: `l2subs_id` + `tunnel-IP`. For PPPoE sessions, tunnel IP = 0. CLI commands that use `subs_id` as a key (`subs prop show`, `l2tp show`

session, `l2tp term`, etc.) may now return multiple entries with the same `l2subs_id`.

Changes in version 14.0 BETA3

1. [DPI] Added cloud protocols with identifiers 55296..58367
2. [IPFIX] Fixed IPFIX exporter reinitialization bugs
3. [BRAS][subs_grooming] Fixed potential crash due to race condition during fastDPI shutdown
4. [CLI] Added commands to display mempool properties and statistics

   ```
   hal mempool props
   hal mempool stat
   ```

   DPDK must be built with statistics collection enabled to display mempool stats

5. [BRAS][DHCP] Fixed crash when parsing Framed-Pool Renew response if it contains no DHCP options
6. [PCRF][Acct] Fixed: Interim-Update sending is now disabled when `Acct-Interim-Interval = 0` is explicitly set in the RADIUS response
7. [VASE_CLI] Created a unified CLI for managing DPI, BRAS, DHCP (KEA), ROUTER (BIRD) with support for authorization and command logging via TACACS (VEOS 8.x required)
8. [SNMP] Created a module for monitoring system components via SNMP

Changes in version 14.0 BETA4

1. [DPI] Added DOQ 49318 protocol (DNS-over-QUIC)
2. [Router] Announcing subscriber white addresses for 1:1 NAT individually and after authentication
3. [PCRF] Added support for service 19 "DNS spoofing", profile required.
4. [DPDK] Added dpdk_engine=6 (`mqrx-bridge`) — number of RSS dispatchers per bridge. Total number of dispatchers = `dpdk_rss * number of bridges`. NIC configuration: RX queue count = `dpdk_rss`, TX queue count = number of worker threads (`num_threads`). Intended for setups with many bridges (dev1:dev2:dev3:...) for 100G+ NICs, as a replacement for the cluster approach. On-stick devices are supported.
5. [DPDK] Removed dedicated mempools. The fastdpi.conf option `dpdk_emit_mempool_size` is deprecated and no longer used.
6. [VLAN-Rule] Moved vlan group data from UDR to SDR. Global rules for vlan drop/pass/hide/permit set by the previous CLI command `vlan group` were converted and moved from UDR to SDR, with removal from UDR.
7. [VLAN] VLAN rules — added CLI commands:
   1. `vlan rule add` - add new rule to SDR
   2. `vlan rule modify` - modify existing rule in SDR
   3. `vlan rule delete` - delete rule from SDR
   4. `vlan rule show` - show all rules for the specified VLAN/QinQ
   5. `vlan rule dump` - dump all rules in SDR
   6. `vlan rule purge vlan/qinq/all` - clear SDR for VLAN/QinQ or both
   7. `vlan rule apply` - apply rules; by default, rules are applied 5 minutes after the last SDR modification
8. [IPv6] Added direction detection in combined traffic (IN+OUT on one port) based on the local flag for IP addresses. Enabled via `combined_io_direction_mode` option

Changes in version 14.0 BETA4.1

1. [BRAS] Fixed compatibility with the old format of service 18, where there were fewer protocols and both fields in the profile needed to be filled
2. [DPI] Lowered detection priority for `telegram_tls`

Changes in version 14.0 BETA4.2

1. [DPI] Improved detection of WECHAT and WECHAT_CALL
2. [BRAS][Framed-Route] Fixed: possible crash when freeing memory
3. [BRAS] Refactored PCRF connectivity: in the new implementation, all connections are equal; an error on any triggers reconnection of all connections and a switch to another PCRF. Added CLI commands:
   1. `pcrf connect show` — show current status and accumulated statistics for PCRF connections.
   2. Force connection to the specified PCRF `pcrf connect switch [<pcrf_index>]`, where `<pcrf_indxed>` is the index of the connection line in the `auth_server` parameter. If `<pcrf_indxed>` is not specified — defaults to 0.
4. [IPFIX DNS] Added the ability to send DNS MX responses via IPFIX. Enabled by setting bit 3 (4) of the `ajb_save_dns` parameter

Changes in version 14.0 BETA4.3

1. [DPI] Added FakeTLS protocol (49319) with validation
2. [BRAS][DHCP] Changed: sliding window algorithm for rate limit
3. [BRAS] Fixed: time comparison error when loading ip_prop from UDR
4. [VLAN-Rule] Added support for 'any' instead of '*' when describing VLAN range

```
'*.*' is interpreted in bash command line as a file search mask, so now
instead of '*', you can specify 'any' ('*' is still supported):
'any.any' - equivalent to '*.*'
'any' - equivalent to '*'
'68.any' - equivalent to '68.any'
'any.78-90' - equivalent to '*.78-90'
```

5. [BRAS] Removed support for DHCP-Dual (moved to next release)
6. [DPI][LOG] Messages about insufficient SSL parsers are written to the slave log not for every event, but at a frequency of 1/50000.

Changes in version 14.0 BETA4.4

1. [DPI] Added protocols ZALO_CALL(49320) and VK_CALL(49321)
2. [DPI] Fixed blocking in hard mode for SSL
3. [Acct] Added attribute `VASExperts-Service-Type`. Radius acct start/interim/stop sends the authorization type in the `VASExperts-Service-Type` attribute.
4. [CLI] Added: `stat flow ip6` command to display IPv6 flow statistics
5. [CLI] Added: `stat flow ip4` command to display IPv4 flow statistics. Analogous to the output in `fastdpi_stat.log`.

6. [IPFIX] Fixed ExportTime formation error in IPFIX Fullflow
7. [CLI] Added `stat netflow` command. Displays general statistics for Netflow/IPFIX (same as in `fastdpi_stat.log` under the "Statistics on NFLW_export" section)
8. [DNS] Added support for substitution/blocking/dropping of DNS requests A, AAAA, MX, HTTPS
9. [CLI] Added `stat firewall` command

Changes in Version 14.0 BETA4.5

1. [DPI] Added BIGO_CDN protocol (49324)
2. [DPI] Added UDP support for BIGOTV
3. [PCRF][L2TP] Fixed: NAS attributes for L2TP during authorization
4. [BRAS][L2TP] Fixed: data race when closing sessions
5. [DPDK] Removed deprecated rx channels settings and related checks

Update instructions

You can check the current installed version with the command below

```
yum info fastdpi
```

If you have CentOS 6.x or CentOS 8.x installed, then switch the repository once with the command:

```
sed -i -e '/^mirrorlist=http:\/\//d' -e 's/^#
*baseurl=http:\/\/mirror.centos.org/baseurl=http:\/\/vault .centos.org/'
/etc/yum.repos.d/CentOS-*.repo
```

and then update as usual.

To install the test version, you should issue the following command:

```
yum --enablerepo vasexperts-beta update fastdpi
```

Downgrade to 13.3:

```
yum downgrade fastdpi-13.3 fastpcrf-13.3 dpiutils-13.3 fastradius-13.3
```

> ⚠️ After an update or version change, a restart of the service is required.