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 E610, Napatech SmartNIC). [Description]
4. [CLI] Added support for `subs_id` in commands: `dhcp show`, `dhcp reauth`, `dhcp6 show`, `dhcp6 reauth`, and `dhcp disconnect`. [Description]

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. [Description]
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. For more details, see sections [IPv4 Pools Support] and [IPv6 pools support]
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. Description
4. [DPDK] Added dpdk_engine=6 (`mqrx-bridge`) — number of RSS dispatchers per bridge. Description
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

Changes in Version 14.0 BETA4.6

1. [IPFIX] Added configurable sending of drop octets/packets counters when generating IPFIX fullflow
2. [PCAP] Added capability to save traffic of a specified vlan using the `ajb_save_vlan` parameter
3. [DPIUTILS] Updated checknat utility
4. [DPIUTILS] Updated dns2dic utility with domain blocking support
5. [BRAS][L2TP] Fixed: data race during tunnel creation
6. [Router] Fixed: interception and diversion of IPv6 packets to tap interfaces. Link-local addresses were not diverted to tap, even if explicitly specified in the `router.subnet6` settings.
7. [BRAS][L2TP] Fixed: length field in L2TP header for data packets. According to RFC, the len field in L2TP header is optional for data packets. Some L2TP client implementations do not understand data packets with the len field in the L2TP header. This fix adjusts FastDPI's behavior: if data packets from the subscriber arrive without the len field, then SSG will also send data packets without this field. If data packets from the subscriber contain the len field, SSG will include it as well.

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.