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# Licensing

- Stingray Service Gateway (SSG) licensing depends on the bandwidth and its features.
- The license is time-unlimited.
- [Technical support](#) is not included in the license and is paid separately.

## SSG licensing

### Bandwidth

Licenses grading of the bandwidth: **SSG-6/10/20/40/60/80/100/120/200**. [Pay attention to the hardware requirements!](#)

Depending on [the installation scheme](#), the following restrictions are assumed:

#### 1. When installing "in line" scheme

- SSG-6 corresponds to 5Gb/s of incoming and to 1Gb/s of outgoing traffic
- SSG-10 corresponds to 8Gb/s of incoming and to 2Gb/s of outgoing traffic
- SSG-20 corresponds to 15Gb/s of incoming and to 5Gb/s of outgoing traffic
- SSG-40 corresponds to 30Gb/s of incoming and to 10Gb/s of outgoing traffic
- SSG-60 corresponds to 45Gb/s of incoming and to 15Gb/s of outgoing traffic
- SSG-80 corresponds to 60Gb/s of incoming and to 20Gb/s of outgoing traffic
- SSG-100 corresponds to 75Gb/s of incoming and to 25Gb/s of outgoing traffic
- SSG-120 corresponds to 90Gb/s of incoming and to 30Gb/s of outgoing traffic



Licensing includes ISP traffic asymmetry. Usually, the incoming traffic is three times more than the outgoing one.

**For example, Incoming - 6G, Outgoing - 2G. License - SSG-10.**

#### 2. When installing using the "mirror" scheme

- SSG-6 corresponds to 6Gb/s of total incoming traffic
- SSG-10 corresponds to 10Gb/s of total incoming traffic
- SSG-20 corresponds to 20Gb/s of total incoming traffic
- SSG-40 corresponds to 40Gb/s of total incoming traffic
- SSG-60 corresponds to 60Gb/s of total incoming traffic
- SSG-80 corresponds to 80Gb/s of total incoming traffic
- SSG-100 corresponds to 100Gb/s of total incoming traffic
- SSG-120 corresponds to 120Gb/s of total incoming traffic

## Features

Licenses grading of the features: **Base/BNG/Complete**

Options	BASE	BNG	COMPLETE
Bypass	✓	✓	✓
Statistics gathering and analysis on protocols and directions	✓	✓	✓
Traffic prioritization depending on protocols and directions	✓	⚪	✓
Common and virtual channel policing	✓	⚪	✓
Subscriber notification and marketing campaigns	✓	✓	✓
Subscriber channel policing for IPv4 and IPv6	✗	✓	✓
Allow Lists and Captive Portal	✗	✓	✓
BNG L3 (IPoE), Dual Stack IPv4/IPv6, Radius with CoA	✗	✓	✓
BNG L2 (PPPoE, DHCP), Dual Stack IPv4/IPv6	✗	✓	✓
Router with BGP, OSPF, IS-IS support	✗	✓	✓
Carrier-Grade NAT	✗	⚪	✓
Ads blocking and replacing	✗	⚪	✓
Mini-Firewall for blocking on certain ports	✗	⚪	✓
Protection against DOS and DDOS attacks	✗	⚪	✓
Regulatory Compliance	BASE	BNG	COMPLETE
Filtering by the blocklisted Internet sites	✓	✗	✓
Lawful interception (LI)	⚪	⚪	✓
Additional modules and services	BASE	BNG	COMPLETE
URL Classifier Local version	⚪	⚪	⚪
URL Classifier Cloud version	✓	✓	✓
Graphical User Interface Base version	✓	✓	✓
Graphical User Interface Global version	⚪	⚪	⚪
Quality of Experience Module Base version	✓	✓	✓
Quality of Experience Module Standard version	⚪	⚪	⚪
Adding banners to HTTP resorses	Subscription		
Signatures SDK	Subscription		
Extended signatures packs	Subscription		
Reserve License	BASE	BNG	COMPLETE
Stand by License	25% from main License		

- ✓ Yes
- ⚪ Optional
- ✗ No

## License Exceeding

If the bandwidth license parameters are exceeded, SSG will process traffic [until the platform reserves are exhausted](#). Once the platform capacity is exhausted, processing errors will occur and traffic degradation will occur. You can limit the bandwidth yourself by polysizing: [Common and Virtual Channels Policing](#), this is only relevant when the total port throughput exceeds the license bandwidth parameters.

VAS Experts reserves the right to refuse technical support or project maintenance to customers who do not comply with license terms, including those who exceed the allowed traffic (including according to the built-in error monitoring system).

## Reserve SSG license

For the purpose of increasing the fault tolerance of the solution, we recommend backing up the main SSG server. Redundancy schemes and descriptions for [BRAS L3](#) and [BRAS L2](#).

Terms of use of the reserve license:

1. Use only for backup purposes of the main server
2. Constant traffic transmission no more than 5% of the license volume, in order to monitor the health of the backup server
3. Processing of all traffic of the main server only in case of an accident or maintenance of the main server

## QoE licensing

Options	BASE	STANDARD
DPI's Full NetFlow and ClickStream statistics visualization	✓	✓
Built-in reports of Full NetFlow-based TOP: high RTT, by traffic volume, by number of re-requests, by application protocols, by AS, by subscribers AS, by access switches and aggregation	✓	✓
Built-in ClickStream-based TOP reports: URLs, hosts, subscribers, devices, IP resources	✓	✓
Custom filters for built-in reports, by web resource category, by protocol group, by subscriber	✓	✓
Download reports in .xlsx, .csv, .pdf, .png formats	✓	✓
API support for integration with external systems	✓	✓
Monitoring of apline quality and cyber threats	✓	✓
Online reports by specific IP, Login	✓	✓
NAT Flow statistics collection, compression, custom filters	⚪	✓
DNS Flow statistics collection, compression, custom filters	⚪	✓
GTP Flow statistics collection, compression, custom filters, map visualization	⚪	✓
Setting triggers and actions on events, DDoS and BotNet detection, notification by email and telegram with a specified periodicity	⚪	✓
Special reports	⚪	✓

✓ Yes

⚪ Optional