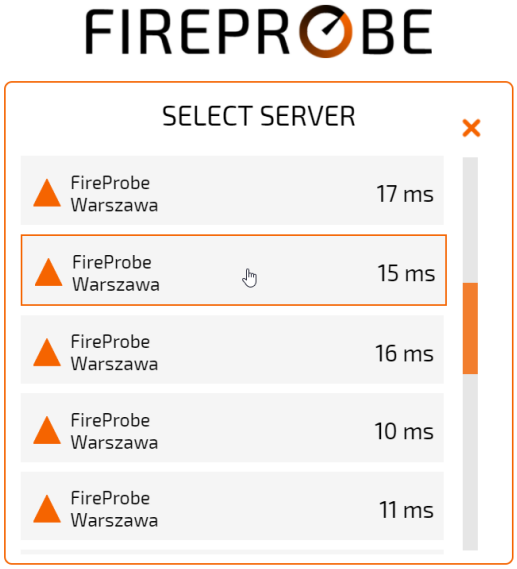
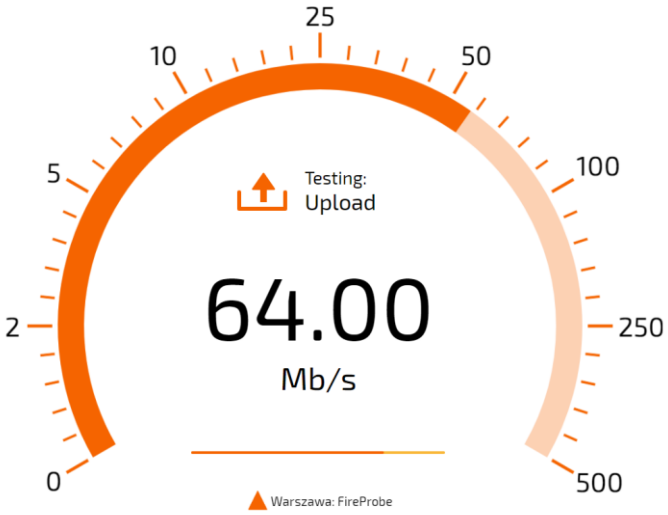
WEB PLATFORM OVERVIEW v.1.5.0

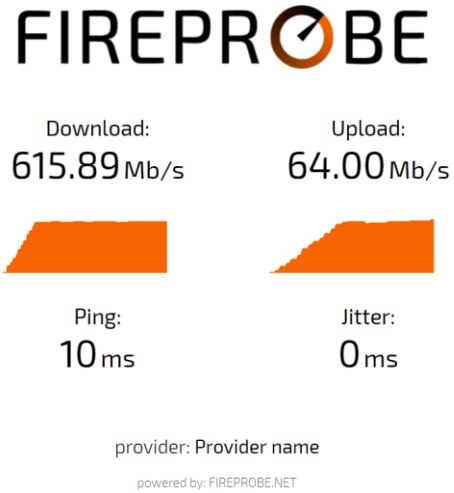
APPLICATION INTERFACE

Start view and server selection options:

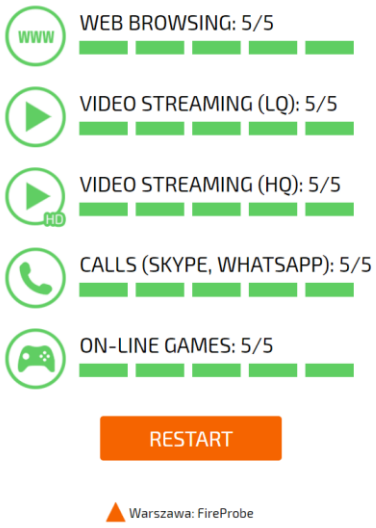


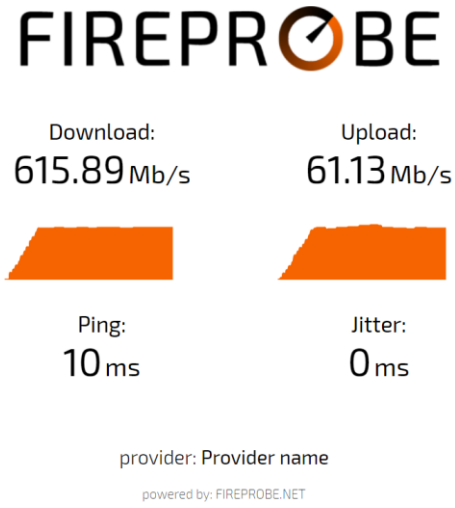
Test progress view:



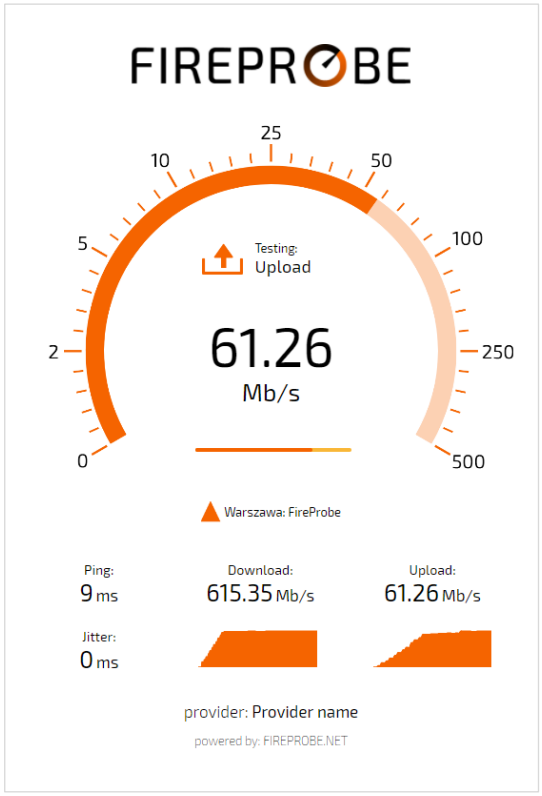


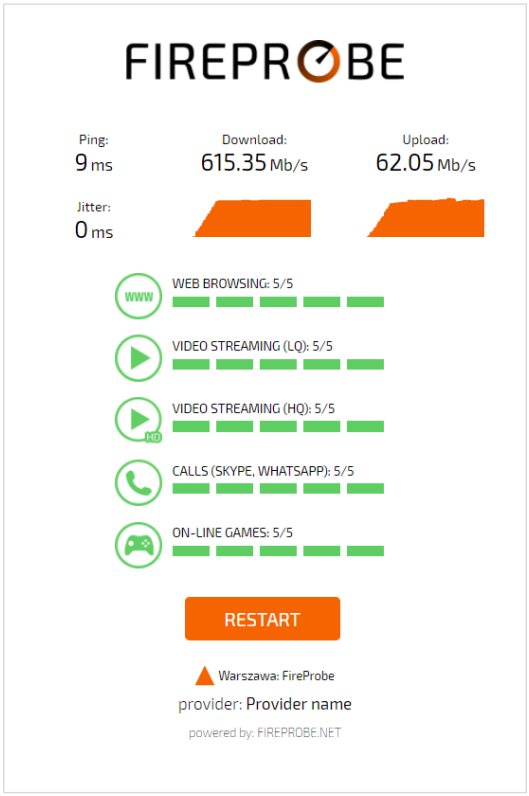
Summary view:





Mobile view:





USER INTERFACE

FIREPROBE is a platform designed for Internet providers to help maintaining and improving their core / radio networks using measurements data. FIREPROBE web application interface is created using RWD (*Responsive Web Design*) rules.

FIREPROBE user interface allows to manage all application settings in real-time:

No	App ID	App type	SSL	Active	Options
1	alpha	HTML5 for browsers			run config remove
2	dev	HTML5 for browsers			run config remove
3	pl	HTML5 for browsers			run config remove

The following application settings are available when select “config” option:

App embedding

Copy/paste below code to your website HTML:

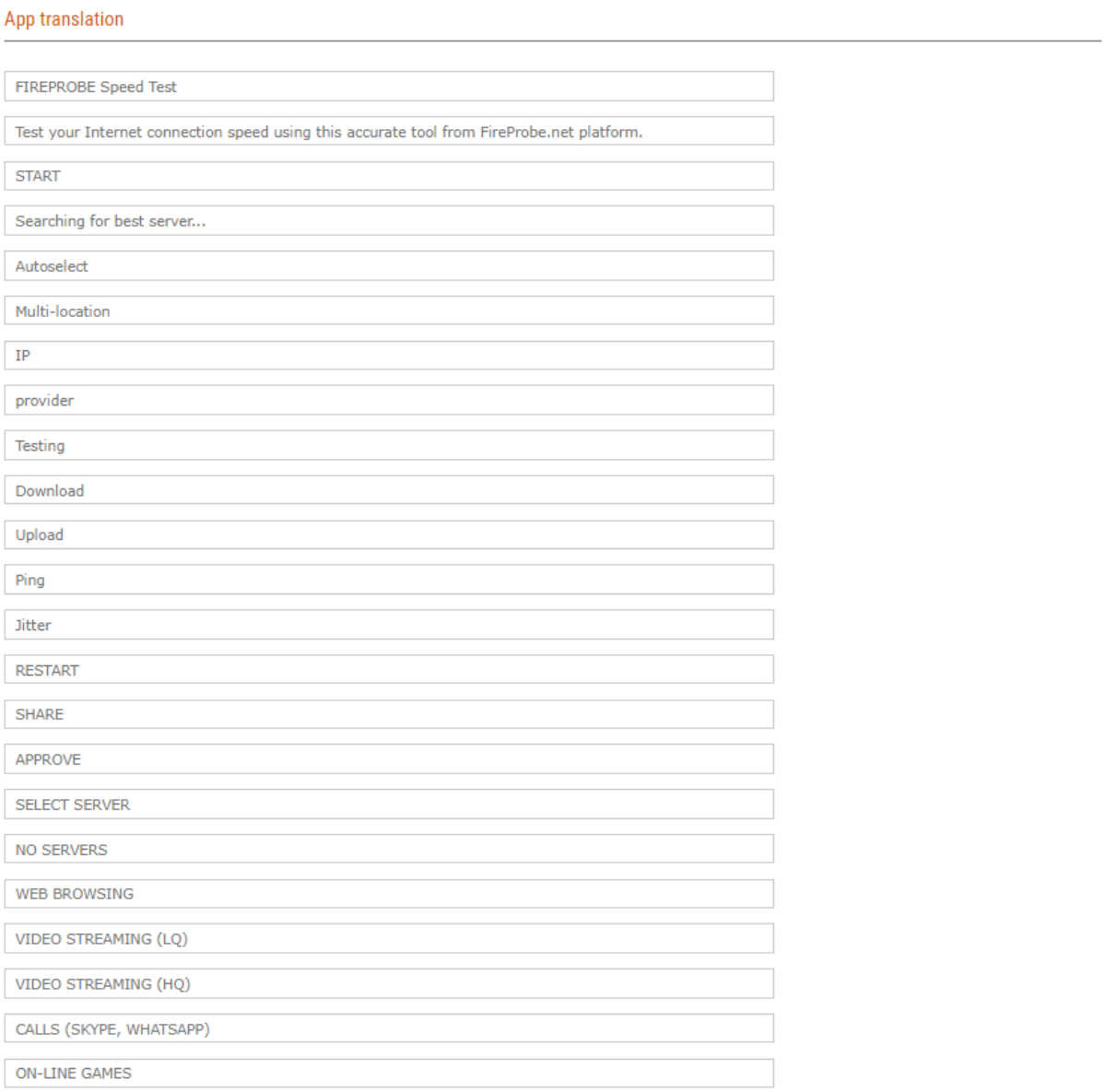
```
<iframe scrolling="no" src="http://dev.fireprobe.net/" style="width: 90vw; height: 90vh; overflow: hidden; border: none;"></iframe>
```

Embed the application to any website using given HTML code.

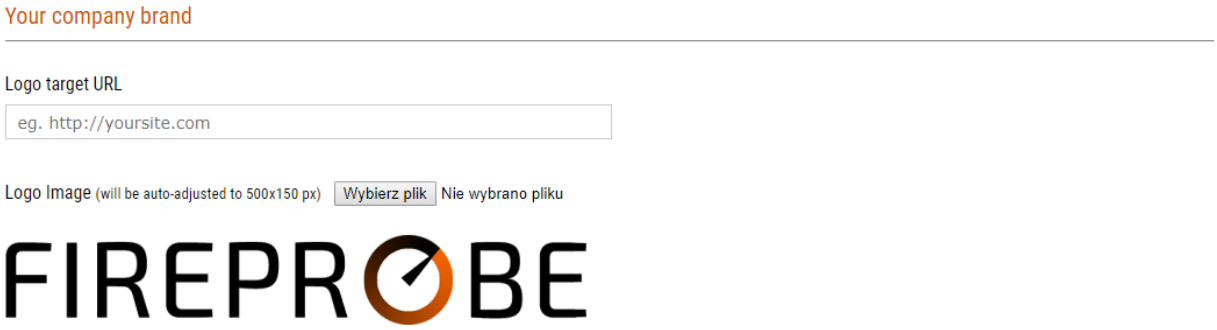
App Interface

Custom colors - text: eg. #000000 background: eg. #ffffff main: eg. #ff6600 light: eg. #ffd1b3 list/track: eg. #e0e0e0

Customize application interface colors. There is of course option to create totally custom graphics template and app engine.

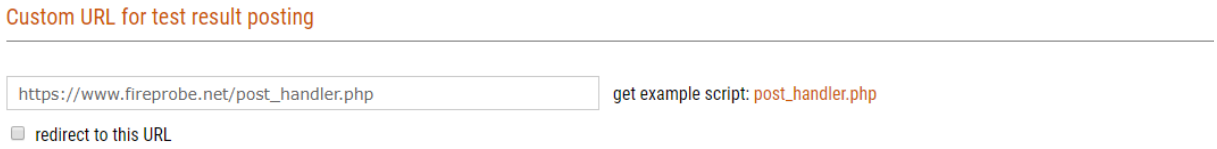


Customize translation of most strings visible in the application.

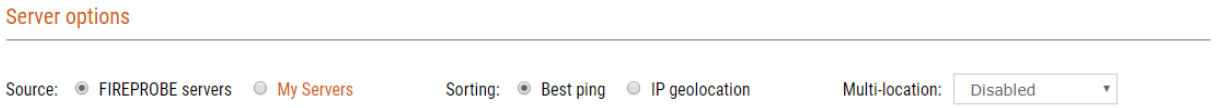


Add your company brand and link to your website to be visible in application interface.

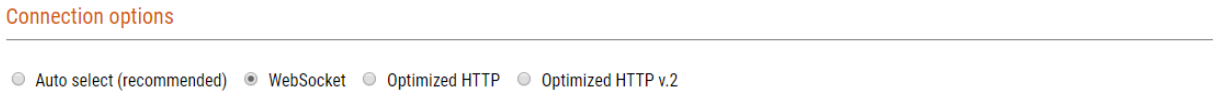
Enable SSL (https) support for embedding application on https websites. This requires SSL mode to be enabled for each reference server used in the application. This also may introduce negative impact for higher bandwidth measurements due tu SSL overhead.



Enable real-time test result posting to external URL with redirect option after test finish. The posting variables and integrity control method is described in *post_handler.php* script. The redirection to external URL may be usable when user need to show custom content depending on the test result.



Use FIREPROBE reference servers infrastructure or add your custom server. See “My Servers”. Sort server list by best ping or according to client-server IP geolocation distance. Multi-location option defines to how many first servers from the sorted list the test is performed.



FIREPROBE uses WebSocket protocol for Windows desktop browsers and Optimized HTTP for the rest (e.g. MAC OS, mobile, linux). This is due to non-full compatibility of these browsers with RFC 6455. Using this option, you can force specified connection method.

Service Mode is dedicated for typical Internet access hardware installation scenario which is performed by technical staff. Simply the test results are not posted anywhere until the “APPROVE” button is pressed after test. The custom variable condition may be defined. See examples:

serviceId – the custom variable **serviceId** must be set (no matter what it contains)
serviceId, part=installation – as above plus custom variable ***part*** must contain exactly *installation* string

Custom variables

It is possible to pass up to 10 custom variables to the application using query string. Just execute application URL with the proper query:

http://**appid**.fireprobe.net/?variable1=value1&variable2=value2&...

where **appid** contains app identification string. The variable and value string length must be shorter on equal than 32.

All the custom variables are posted with test results to the FIREPROBE gateway and to the custom post URL in real time as JSON formatted string. They are also available in records while exporting results to CSV file.

FIREPROBE user interface allows to manage reference servers settings in real-time:

No	Name	Country	City	App	TCP	TLS	Active	CPU	Net	Alive	Version	Options
1				all				0 %	0 %	17 s	214	edit assign ip remove
2				all				0 %	0 %	41 s	214	edit assign ip remove
3				all				0 %	0 %	16 s	214	edit assign ip remove
4				all				4 %	6 %	30 s	214	edit assign ip remove
5				all				11 %	3 %	60 s	214	edit assign ip remove
6				all				3 %	4 %	6 s	214	edit assign ip remove
7				all				2 %	5 %	44 s	214	edit assign ip remove
8				all				6 %	10 %	24 s	214	edit assign ip remove
9				all				3 %	8 %	29 s	214	edit assign ip remove
10				all				0 %	0 %	53 s	214	edit assign ip remove
11				all				0 %	2 %	6 s	214	edit assign ip remove
12				all				3 %	8 %	41 s	214	edit assign ip remove
13				all				6 %	10 %	7 s	214	edit assign ip remove
14				all				4 %	8 %	40 s	214	edit assign ip remove
15				all				5 %	8 %	14 s	214	edit assign ip remove

User's own server can be added according to the detailed instructions and its settings can be managed:

Server stats

Name	Value
Last report	2019-08-26 10:18:43 (57 s)
Network load	0 %
CPU load	1 %
Current uplink	0.32 Mb/s
Current downlink	0.01 Mb/s
Report interval	60 s

Server software setup

1. Hardware/OS requirements

   - Bare-metal or virtual modern Linux server (e.g Debial, CentOS)
   - Min. 2 GB of RAM, Min. 2 CPU core
   - Min. 1 Gb/s Internet connection
   - Python 3.4+ (versions 3.2 and 3.3 have limited support)
   - Python 3 OpenSSL (pyOpenSSL)
   - current OpenSSL

2. TCP Server setup

   Make and enter some directory in Linux system. Then execute the commands:

   ```
   wget http://www.fireprobe.net/install.sh
   chmod +x install.sh
   ./install.sh
   ```

   This will download and unpack tar.gz package and start the server on default ports (TCP: 9113, 9114). If you need to change the ports or enable IPv6 - feel free to edit `fireprobe.sh` file and then restart service using command:

   ```
   ./fireprobe.sh restart
   ```

3. Server stats reporting

   To better manage your servers, FIREPROBE collects their stats (link speed, link load, cpu load) in 60 seconds interval. To enable this feature, edit `fireprobe.sh` file and set the following variables for this server:

   ```
   SERVERID="[redacted]"
   SERVERKEY="[redacted]"
   ```

   Then restart the service using command:

   ```
   ./fireprobe.sh restart
   ```

4. Final notes

   Your server will be checked every 5 minutes. You can see the status in the server list.

Server credentials

Server ID

[redacted]

Server key

[redacted]

Server domain in FIREPROBE infrastructure

[redacted]

Server configuration

Server Name (any string)

[redacted]

App

All My Apps

Link speed [Mb/s]

100

Host name

[redacted]

IPv4 address

[redacted]

IPv6 address (optional)

example: 2001:0db8:85a3:0000:0000:8a2e:0370:7334

TCP port (default: 9113)

8080

TCP TLS port (default: 9114)

443

Country

AU - Australia

City

Sydney 2

Longitude

151.1982

Latitude

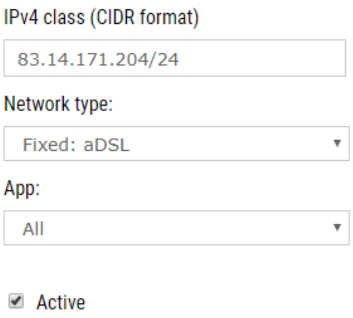
-33.8612

E-mail for notifications (leave blank for default)

☑ Monitoring notifications
☑ Active

Update & check Server

When “assign IP” option for server is used, the selection of this server will be suggested on server list in application interface for specified client IPv4 source public address:



Additionally, FIREPROBE checks every server state in 5 minutes intervals. If the state is changed, the default or specified per server e-mail address is used for receiving notifications. If the server is in a down state in the platform, it can't be shown on the server list.

Every test result is stored in FIREPROBE database. Result list can be viewed and exported to CSV file separately for every user application:

Test count: 79 (get stats in CSV format)

No	Date, time	Country	City	Isp	DL [Mb/s]	UL [Mb/s]	LT [ms]	Jitter [ms]
1	2018-01-17 22:58:01	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	43.18	5.50	23	0
2	2018-01-17 22:56:27	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	28.73	3.30	20	0
3	2018-01-17 22:53:48	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	37.08	3.60	21	0
4	2018-01-17 22:52:40	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	34.90	3.08	23	0
5	2018-01-17 22:52:16	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	34.08	3.27	21	0
6	2018-01-17 22:51:51	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	32.46	4.06	20	0
7	2018-01-17 22:51:26	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	37.44	4.88	24	0
8	2018-01-17 22:51:03	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	35.44	2.89	22	0
9	2018-01-17 22:50:43	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	29.00	4.36	22	0
10	2018-01-17 22:50:21	PL	Jelenia Góra	Telefonia Dialog sp.z.o.o.	37.07	3.81	22	0

Account information can be updated by user.