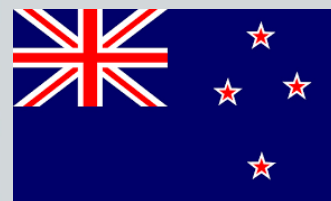# Barometer of fixed internet connections in New Zealand

H2 2019 – H1 2020

Content

1 Summary of global annual results

1.1 Summary table and nPerf score, all technologies combined

nPerf barometer summary table H2-2019 / H1-2020
Fixed Internet connections in New Zealand

	2degrees	Slingshot/Orcon	Spark	TrustPower	Vodafone
Download bitrate	211.83 Mb/s	129.10 Mb/s	110.98 Mb/s	96.87 Mb/s	90.58 Mb/s
Upload bitrate	145.91 Mb/s	85.97 Mb/s	75.44 Mb/s	57.50 Mb/s	48.36 Mb/s
Latency	22.94 ms	22.17 ms	26.20 ms	32.63 ms	28.25 ms
nPerf Score	154 937 nPoints	143 660 nPoints	136 938 nPoints	128 424 nPoints	128 773 nPoints

We qualify your connection

☆ 1st in category

Best fixed Internet performance

Based on the nPerf score which takes into account the upload and download bitrates as well as the latency, all technologies combined.

No.1 BROADBAND PERFORMANCE nPerf AWARDS H2-2019 H1-2020

*** **2degrees,** the best fixed Internet performance during the last 2 semesters ***

1.2 Our analysis

During the last 2 semesters, nPerf users conducted 48,151 connection tests on New Zealand's five largest Internet Service Providers.

2degrees dominates the market in terms of performance of fixed Internet connections by being first on download and upload speed tests and in second position on latency tests.

Its main rival is Slingshot/Orcon, still quite far behind the leader in average over the period, is getting closer to 2degrees regularly. A great battle in perspective for 2020!
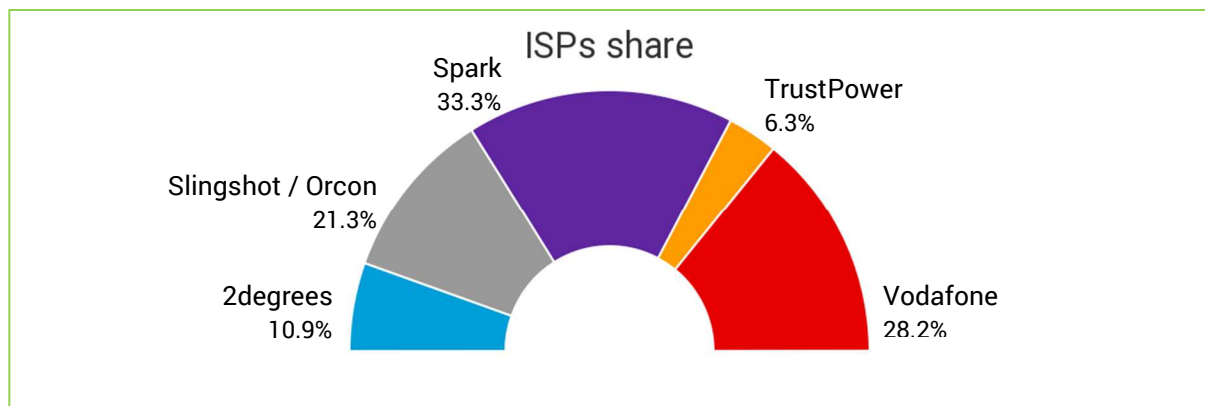
2 Overall results, all technologies combined

2.1 Data amount and distribution

From July 1, the last 2 semesters to June 31, 2020 we counted 48,151 tests, distributed after filtering as follows:
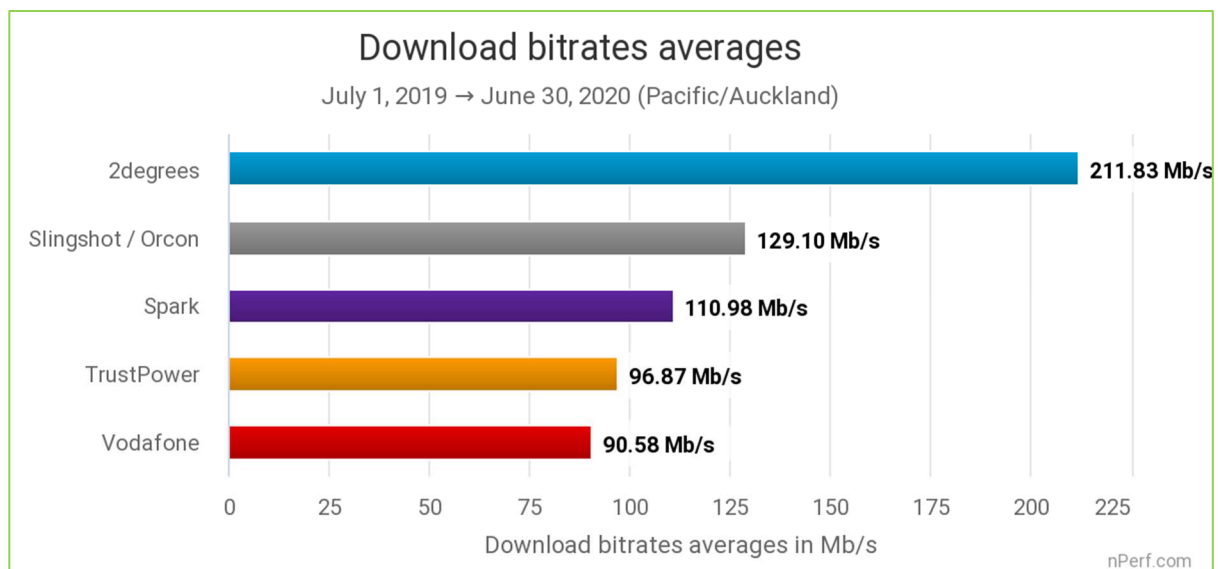
Country	Tests
New Zealand	**40,919**

Breakdown of tests by provider

ISPs share

Spark
33.3%

TrustPower
6.3%

Slingshot / Orcon
21.3%

2degrees
10.9%

Vodafone
28.2%

2.2 Download speed

The average download speed in New Zealand was 119 Mb/s during the last 2 semesters.

Download bitrates averages

July 1, 2019 → June 30, 2020 (Pacific/Auckland)

Provider	Download bitrates averages in Mb/s
2degrees	211.83 Mb/s
Slingshot / Orcon	129.10 Mb/s
Spark	110.98 Mb/s
TrustPower	96.87 Mb/s
Vodafone	90.58 Mb/s

Download bitrates averages in Mb/s

nPerf.com

The highest value is the best.

2degrees has provided the best fixed download speed during the last 2 semesters.

Download bitrates averages (month)
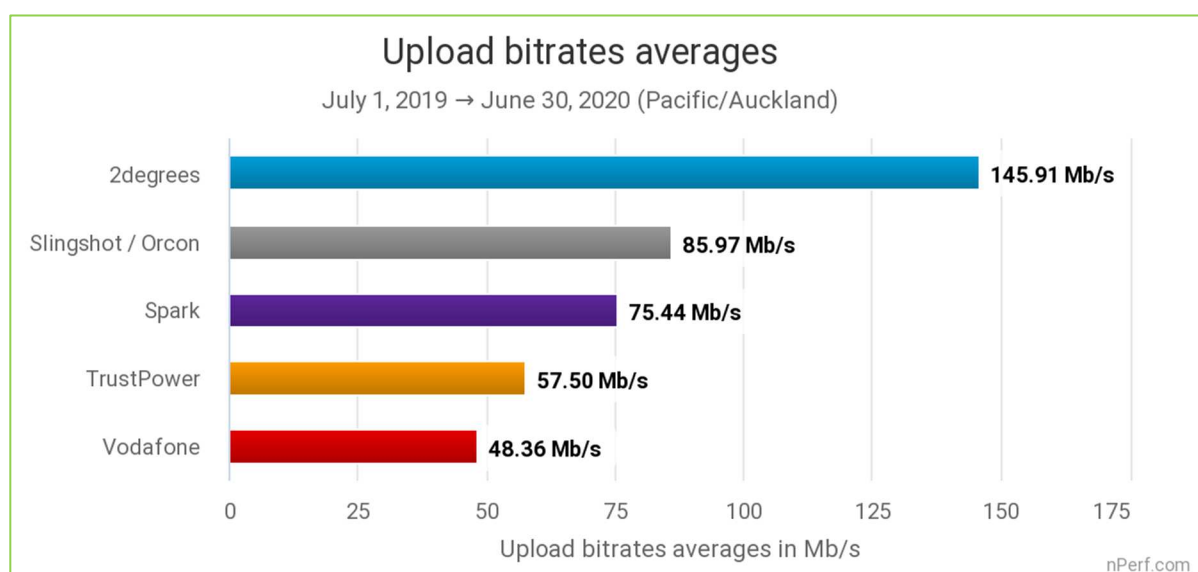July 1, 2019 → June 30, 2020 (Pacific/Auckland)
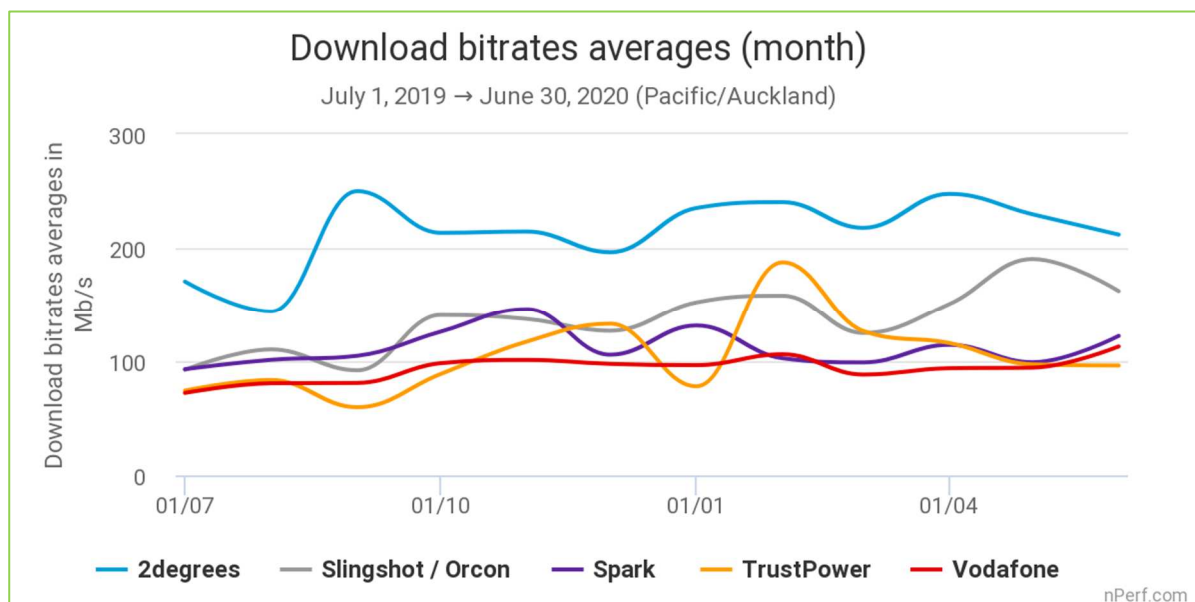
Above graph illustrates the ability of providers to maintain a constant download speed over the period regardless of network load (number of connected end-users).

Globally, all ISP's slightly improved their download speed throughout the period.
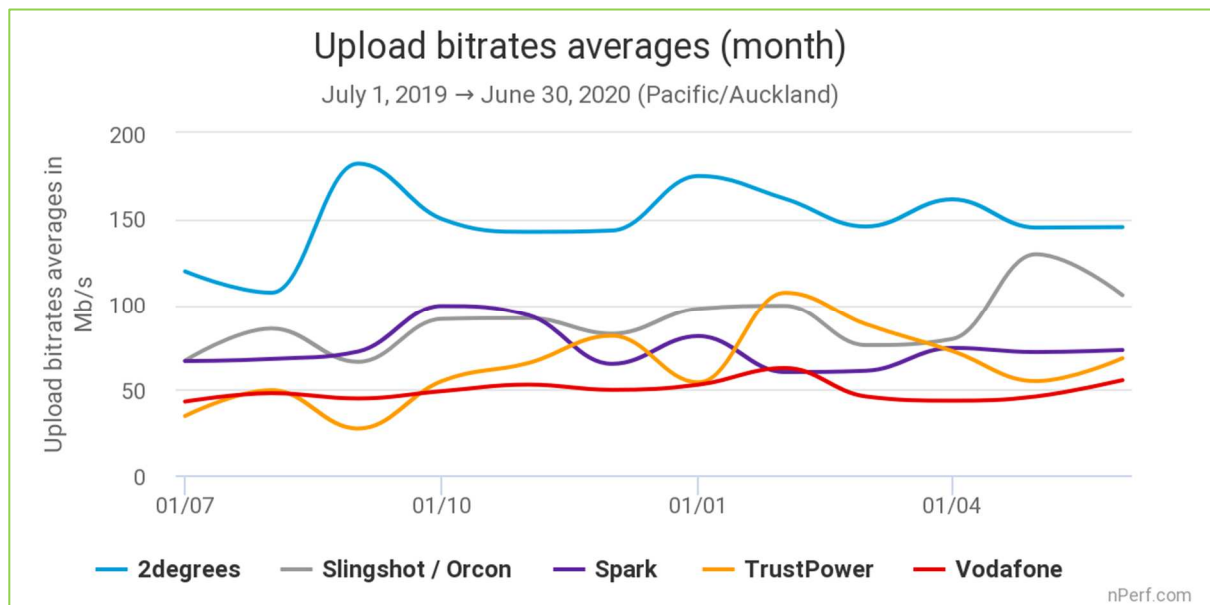
2.3 Upload speed

The average upload speed in New Zealand was 77 Mb/s during the last 2 semesters.

Upload bitrates averages
July 1, 2019 → June 30, 2020 (Pacific/Auckland)

The highest value is the best.

2degrees has provided the best fixed upload speed during the last 2 semesters.

Upload bitrates averages (month)
July 1, 2019 → June 30, 2020 (Pacific/Auckland)

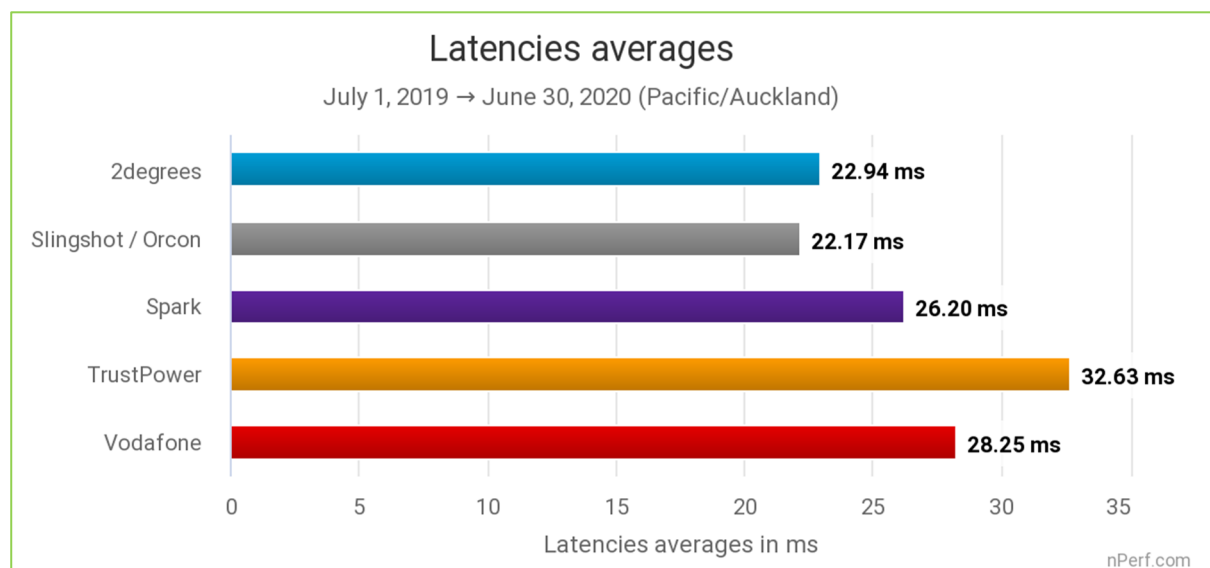Legend: 2degrees · Slingshot / Orcon · Spark · TrustPower · Vodafone

nPerf.com

Above graph illustrates the ability of providers to maintain a constant upload speed over the period regardless of network load (number of connected end-users).

Globally, all ISP's provided fairly stable performance throughout the period except for Slingshot/Orcon which has improved a bit.

2.4 Latency

**The average latency in New Zealand was 26 ms during the last 2 semesters.**

Latencies averages
July 1, 2019 → June 30, 2020 (Pacific/Auckland)

Provider	Latency
2degrees	22.94 ms
Slingshot / Orcon	22.17 ms
Spark	26.20 ms
TrustPower	32.63 ms
Vodafone	28.25 ms

Latencies averages in ms

nPerf.com

The lowest value is the best.

Slingshot/Orcon has provided the best fixed latency during the last 2 semesters.
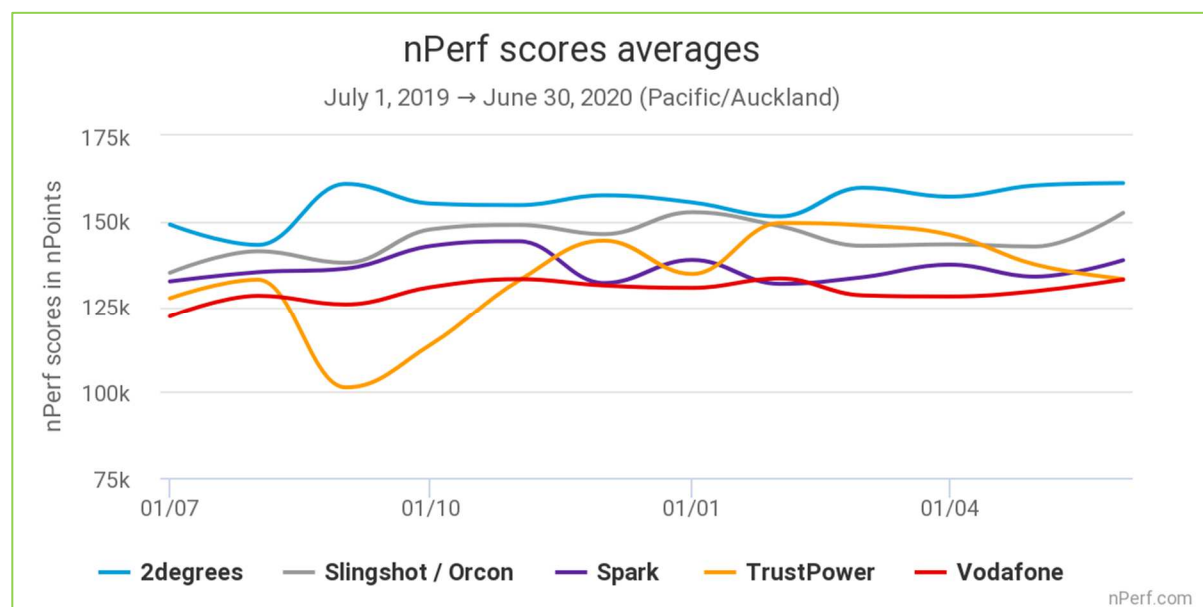
nperf

2.5 nPerf score, all technologies combined

The nPerf score, expressed in nPoints, gives an overall picture of the quality of a connection. It takes into account measured bitrates (2/3 Download + 1/3 Upload) and latency. These values are calculated on a logarithmic scale to better represent the perception of the user.

Thus, this score reflects the overall quality of the connection for mainstream consumer use.
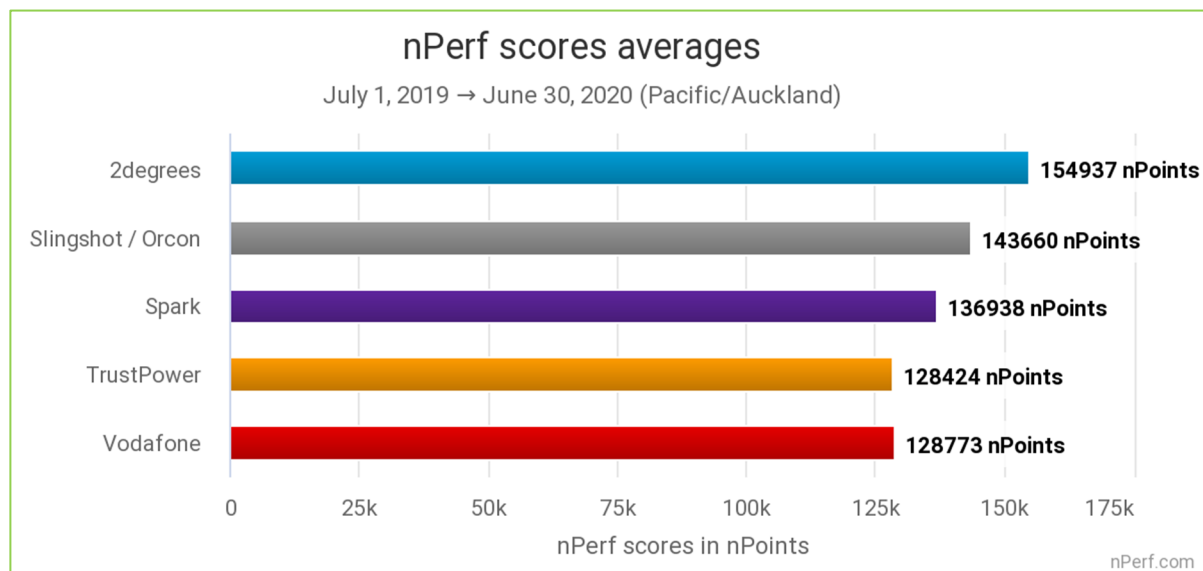
The highest value is the best.

2degrees, the best fixed Internet performance during the last 2 semesters.

We note that most of the ISP's slightly increased their score during the last 2 semesters and that Slingshot/Orcon is getting closer to 2degrees regularly. A great battle in perspective for 2020!

3 Methodology

3.1 The panel

nPerf offers an Internet speed test application, which can be used for free at www.nPerf.com.

Everyone is free to use nPerf to measure the speed of their Internet connection. All users of the nPerf application form the panel of this study.

In addition, the results from the nPerf speed tests integrated on our partner websites are also included in the panel.

Thus, the nPerf study is based on thousands of tests, making it the study with one of the largest panel in New Zealand.

3.2 Speed and latency tests

3.2.1 Objectives and operation of the speed and latency test

The purpose of the nPerf Speed Test is to measure the maximum capacity of the data connection in terms of data rates and latency.

To achieve this, nPerf establishes multiple connections simultaneously to saturate the bandwidth to accurately measure it. The speed used for the barometer is the average speed measured by the application.

Speed measurements thus reflect the maximum capacity of the data connection. This rate may not be representative of the user experience experienced during normal use of the Internet, as it is measured only on nPerf servers.

The measured bit rate can be impacted by the quality of the user's local network, especially since the expected flow is high. Thus, for an optical fiber internet connection, a local WiFi or Power-Line connection can greatly reduce performance. However, since these constraints are identical to all market operators, they do not bias the comparison. In addition, the user is made aware of these constraints and invited to use a wired local connection for testing very high speed.

3.2.2 nPerf servers

To ensure maximum user bandwidth at all times, nPerf relies on a network of servers dedicated to this task.

These servers are located with hosts in New Zealand and abroad. nPerf has also installed dedicated servers directly at local ISPs to maximize measurement reliability.

Other local providers are welcome to install nPerf servers, that's free!

The total bandwidth available for New Zealand is greater than 40 Gb/s and exceeds 5 Tb/s worldwide with more than **1000** active nPerf servers.

3.3 Filtering of test results

The results obtained are subject to automatic and manual checks to avoid duplication and to rule out possible abusive or fraudulent use (massive tests, robots ...).

Tests performed on cellular connections (2G, 3G, 4G,5G) are also excluded from this barometer.

3.4 Statistical accuracy

With regard to the total volume of unit tests, the statistical precision used in this publication is:

- ✓ 3% for absolute values

If, for a given indicator, one or more operators have results very close to the best, in the confidence interval defined above, these will be share first place.

4 You too, participate in the nPerf panel!

To participate in the panel, simply test your connection on the website www.nperf.com. For mobile Internet, you can also use the nPerf app, available for free on the Apple AppStore for iPhone and iPad, on Google Play for Android devices and on the Windows Store for Windows Phone and Windows Mobile devices.

5 Custom analysis & contact

Do you need further study or want to get the raw data, punctually or automatically, to compile it yourself?

You can contact nPerf via www.nPerf.com "Contact Us" section or directly from the mobile app.

Phone contact: +33 482 53 34 11

Address: nPerf SAS, 87 rue de Sèze, 69006 LYON, France

Stay in touch with us, follow us!