Press release

DATA-DRIVEN REGULATION

Arcep adopts a decision aimed at increasing the accuracy of fixed internet QoS measurements by installing an API on boxes

Paris, 25 October 2019

Measuring the quality of fixed internet services is a particularly complex affair: it is virtually impossible today, from a technical standpoint, for an internet speed test to determine with absolute certainty the access technology (copper, cable, fibre, etc.) being used on the tested line. This missing detail in the testing process – which renders it impossible to isolate factors that are likely to heavily influence results – undermines the usefulness of the resulting data and, in some cases, can mislead consumers.

"Access ID card" API on boxes: characterising the user environment, a global first

A great many users currently employ crowdsourcing measurement tools to test the speed or measure the overall quality of their internet connection. The purpose of the "access ID card" API, to which these measurement tools would have access, is to characterise the testing environment. Requested only when the user initiates a speed test, and remaining under their control, the API will provide the measurement tool with a series of technical indicators such as the internet access technology, the advertised uplink and downlink speeds, and Wi-Fi signal quality.

The resulting, now qualified, findings mark another step towards improving the accuracy of measuring quality of service on fixed networks.

The Arcep decision details the framework for implementing the API, ensuring that users' privacy is fully protected

The operators and boxes concerned, the technical parameters provided, the implementation timetable, and the technical implementation specifications are all set out in the decision. The data collected by the API are not transmitted to Arcep. The API will not transmit any information on the user's identity (user ID, name, location, etc.) to the measurement tools, thereby ensuring that users' privacy is fully protected. The API is only requested when users themselves initiate a speed test, and does not respond to requests from the internet. When questioned about this process, France's data privacy watchdog, CNIL, was able to verify that the mechanism's design complies with data privacy requirements, while also underscoring the importance of Arcep's advisory role, notably through its "Code of conduct on internet quality of service" for measurement tools that use the API.

"Access ID card" API: a co-construction approach with the ecosystem's stakeholders

In early 2018, Arcep began a wide-ranging initiative that called upon all of the market's stakeholders to help solve this challenge of accurately measuring quality of service on fixed networks. This co-construction[1] approach initiated by Arcep involves some 20 players, including crowdsourcing measurement sites, operators and academia. The ecosystem reached a consensus on the implementation of an Application

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[1] 2018 edition of the report on the State of the Internet in France: description of the API co-construction process

Programming Interface (API) that would be installed directly on operators' boxes, and could be accessed by tools that comply with the Code of Conduct that Arcep published last year[2].

A public consultation was held on this project last spring. The 17 responses that Arcep received are being published today (in French; see Annex). Working in concert with the ecosystem's players, these contributions made it possible to adjust the procedure for implementing the API.

The Decision adopted by Arcep will be submitted to the Minister responsible for electronic communications for approval then, if approved, will be published in the *Journal officiel*.

Associated documents:

Arcep Decision No.2019-1410.
Responses to the public consultation.(zip - 4,5 Mo)

Arcep at a glance

The Regulatory Authority for Electronic Communications, Postal Affairs and Print Media Distribution (Arcep), a neutral and expert arbitrator with the status of independent administrative authority (IAA), is the architect and guardian of internet, fixed and mobile telecoms and postal networks in France

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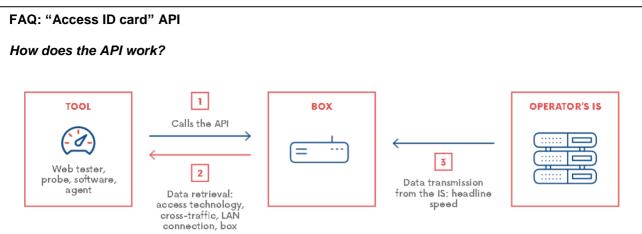[2] 2018 edition of the quality of service Code of conducts

FAQ: "Access ID card" API

How does the API work?

Source: Arcep

(1) The measurement tool used by the customer sends a request to the API implemented on the box.
(2) The API answers the measurement tool by sending it the technical specifications that characterise the user environment.

Most of the transmitted information is available natively from the box. The other specifications that are not natively available, such as the advertised speed of the user's Internet plan, are transferred from operators' information system to the box (3).

Which measurement tools have access to the API?

The API will be accessible to measurement tools that have declared themselves compliant with the "Code of conduct on Internet quality of service" published by Arcep.

To date, five fixed Internet QoS testing tools have declared themselves compliant with the Code of conduct:
- nPerf;
- SpeedTest UFC-Que Choisir;
- DébitTest 60;
- 4GMark;
- IPv6-test.

The 2018 version of the Code of conduct on Internet quality of service, which sets minimum transparency and robustness requirements, will evolve over time.

What boxes will the API be implemented on?

Operators that have more than a million customers, and that satisfy the conditions described in the Arcep decision, will be required to implement the API on most of the models of xDSL, cable, FTTH and fixed 5G boxes they provide to their customers, within 18 months of the Arcep decision's publication in the *Journal officiel*, after having been approved by the minister.

Arcep also encourages them to install the API in the other box models.

Can the API be accessed from the Internet?

No, the API can only be accessed from the end user's local network, and does not respond to requests coming from the Internet. Moreover, an access restriction system has been put into place to ensure that only authorised tools can access the API.

When will the API be available?

The API will be deployed gradually over time:
- 22 months after the decision's publication, the API will be implemented in 5% of the boxes required to contain the API;
- 26 months after the decision's publication, the API will be implemented in 40% of the boxes required to contain the API;
- 30 months after the decision's publication, the API will be implemented in 95% of the boxes required to contain the API, and 100% of the affected boxes being provided to new customers.