

Press release

TRANSITION TO IPv6

Arcep publishes its annual barometer of the transition to IPv6 and creates a task force to step up the momentum

Paris, 15 November 2019

By the end of 2019¹, the supply of available IPv4 addresses will have run out, and the internet “will stop growing”.

For some time now, the internet has relied on IPv4 to function, a protocol that must now be steadily replaced by IPv6². The regional registry for IP addresses which is tasked with allocating IPv4 addresses in Europe and the Middle East, RIPE-NCC announced that the number of IPv4 addresses awaiting allocation exceeds the number of remaining IPv4 addresses. This shortage is already driving a significant increase in the price of these addresses in the secondary market, which creates a real barrier to entry for new entrants to the internet. It has therefore become urgent, for the sake of competition and innovation, that all internet players switch over to IPv6.

Arcep posts an expanded version of its barometer of the transition to IPv6 online, which underscores how far players are lagging behind

The barometer takes a look at all of the players along the internet chain, and the progress they are making in their transition to IPv6. It details the current status of deployments and includes the main operators' forecasts for both fixed and mobile networks.

There are several new additions to this year's scorecard: information gathering has been expanded to include operators with between 5,000 and 3 million residential customers, while exclusive figures from partners such as Afnic³ help supplement the barometer.

Once again this year, Arcep is alerting the public to the fact that the majority of players are not planning for a deployment that will enable them to deal with the dearth of IPv4 addresses, and urges the entire internet ecosystem to accelerate the pace of their transition – which is the only future-proof solution.

On fixed networks, Arcep has observed progress amongst the main telecom operators in France, but is calling on them to step up their efforts. Their deployment forecasts will not suffice to handle the shortage of IPv4 addresses. On mobile networks meanwhile, despite their efforts, Arcep is sending operators a warning about the sluggishness of their IPv6 deployments, and urges them to take the necessary steps to respond to the dearth of IPv4 resources.

An operator-by-operator summary of the finding can be found at the end of this press release.

¹ <https://www.arcep.fr/la-regulation/grands-dossiers-internet-et-numerique/lipv6/suivi-epuisement-adresses-ipv4.html>

² Arcep specifies that the conclusions and work referred to in this press release pertain only to the internet, and do not apply to private interconnection between two parties, notably the interconnection of two operators' networks for Voice over IP call termination.

³ Association for domain name registration and information in France

Press liaison

Anne-Lise Lucas
anne-lise.LUCAS@arcep.fr
Tel.: 01 40 47 71 37

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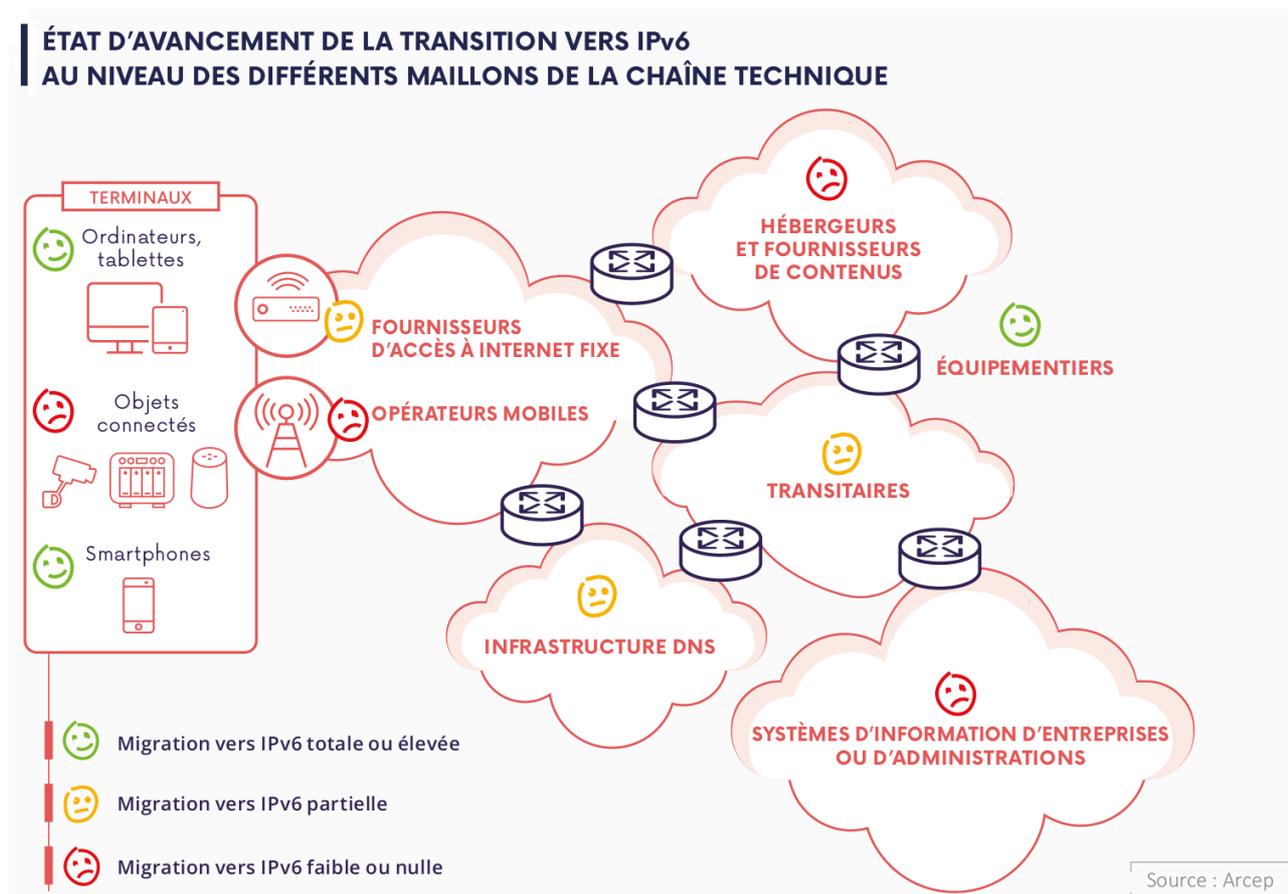
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The slowness of progress is especially significant amongst web hosting companies. Only 15.5% of the three and a half million websites with .fr, .re, .pm, .yt, .tf and .wf domain names are currently IPv6-enabled⁴. And the percentage amongst mail servers is particularly alarming: with only 5.8% of them being IPv6-ready.

Status of the transition to IPv6 on the different links of the technical chain



First meeting of the IPv6 task-force created by Arcep, in partnership with Internet Society France

The IPv6 task force, whose first meeting has been held today, is open to all internet stakeholders (telcos, hosting companies, businesses, public sector players, etc.). Its goal is to help accelerate the transition to IPv6 by enabling participants to tackle specific problems and share best practices. It will meet twice a year.

During this first meeting, participants had an opportunity to interact during two workshops: one on the impact of the IPv4 shortage, and the other on IPv6 security issues. These workshops were preceded by talks from RIPE-NCC and ANSSI representatives.

If you want to participate in the transition to IPv6, [sign up](#) for the task force.

⁴ Afnic data, September 2019

Press liaison

Anne-Lise Lucas
anne-lise.LUCAS@arcep.fr
Tel.: 01 40 47 71 37

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Current status of IPv6 deployments and main operators' forecasts for fixed and mobile networks – Summary of the findings

On the fixed network:

- 100% of SFR customers are already IPv6-compatible on xDSL, 60% on FttH and 0% on cable. There has been notable progress on making FttH customers IPv6-ready, even if their numbers remain small (fewer than 7%, all technologies combined). Upcoming activations also remain inadequate: between 25% and 35% by mid-2020 and between 45% and 55% by mid-2022. Because the vast majority of users will not take the initiative to enable IPv6 manually, Arcep is urging SFR to perform this configuration by default, as most other operators are doing.
- Bouygues Telecom has also made deployment efforts on its fixed networks (around 20% of customers were IPv6-ready as of mid-2019 compared to 2.5% in mid-2018) although IPv6 compatibility is still very low. Forecasts also remain far from sufficient (between 50% and 60% by mid-2022) to handle the shortage. Bouygues Telecom is being urged to increase the number of IPv6-ready customers, and to step up deployment efforts on its fixed network.
- The percentage of Free and Orange customers who are IPv6-ready is relatively high (around 80% and 68%, respectively) in addition to having increased. Projections for mid-2022 are encouraging (100% for Free and between 85% and 95% for Orange) but the shortage of IPv4 addresses requires an even greater acceleration in their transition.
- Arcep welcomes Free's installation of new firmware on the vast majority of its boxes in May 2019, and the removal of the ability to deactivate IPv6, which significantly increases the use of IPv6 in France.
- All four operators are invited to make their products for businesses IPv6-compatible, and to begin the transition on fixed 4G as soon as possible.

On the mobile network:

- Bouygues Telecom continues its mobile network deployments, with 79% of Android customers now IPv6-ready.
- Orange forecasts for Android customers are worth noting (between 15% and 25% by mid-2020 and between 45% and 55% by mid-2022) even if the operator is being urged to increase the number of IPv6-compatible devices.
- Bouygues Telecom and Orange made a remarkable push on iPhones in September 2019: 68% and 30% IPv6-ready, at the end of October 2019.
- Despite SFR's forecasts for 2022, Arcep believes the pace of deployment and the targets are insufficient.
- It is particularly regrettable that that Free Mobile was unable to supply its forecasts.
- Operators are being called on to begin IPv6 deployment on all of their products, notably "data only" plans and those aimed at businesses.

Associated documents:

- [Annual barometer of the transition to IPv6 in France](#)

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

Press liaison

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