

## CHAPTER 2

# Continuing to accelerate the transition to IPv6



### THE BOTTOM LINE

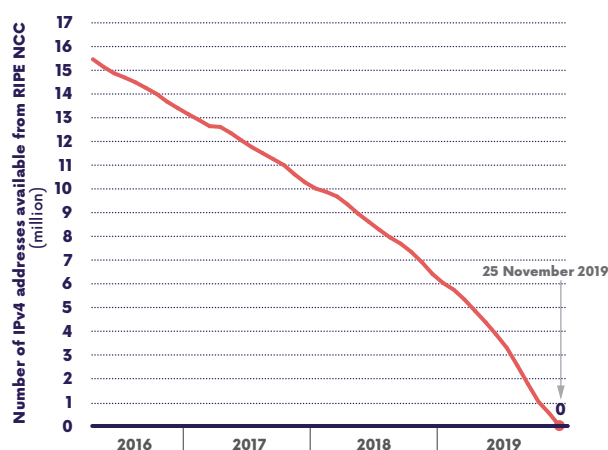
- The transition to IPv6 has become a **pressing issue, to prevent the internet from being split into two with IPv4 on one side and IPv6 on the other.**
- At the end of 2024, **87% of residential fixed access customers** (FtTH, cable, ADSL) in France were IPv6-enabled, compared to **70% of mobile network customers**. There continue to be disparities between operators, however, particularly in terms of enabling IPv6 on business plans.
- Of the 100 countries with the most internet users, **France ranks second in IPv6 adoption**, with a combined residential and business adoption rate estimated at 68.6% in February 2025, behind India (73.4%).
- The rate of IPv6 **mail** hosting increased by 15 points in the past two years (from 8% to 23%), compared to a three-point increase in the previous four years.
- Arcep chairs the **IPv6 task force** which is launching a forward-looking working group, "IPv6 2030: requirements for a future IPv6 internet".

## 1. THE TRANSITION TO IPV6: VITAL TO THE FUTURE OF THE INTERNET

Every device connected to the internet has an IP address. Public IP addresses are registered and routable on the internet and are therefore unique. Internet Protocol version 4, or IPv4, which has been used on the internet since 1 January 1983, provides an addressing scheme of close to 4.3 billion IP addresses. However, the overwhelming success of the internet, the range of uses, and the proliferation of connected objects have led directly to the **gradual exhaustion of IPv4 addresses**. Since 25 November 2019, RIPE NCC (the regional internet registry that allocates IPv4 addresses in Europe and the Middle East) has been experiencing a shortage of IPv4 addresses.

To tackle this situation, IPv6 specifications were finalised in 1998. They incorporate functions for increasing security by default and optimising routing. Above all, IPv6 delivers an almost infinite number of IP addresses: 667 million billion IPv6 addresses for each square millimetre of the Earth's surface.

### History of IPv4 address exhaustion



Source: RIPE NCC data.

However, the sluggish pace of IPv6 development is creating a **risk of seeing the internet split in two, with IPv4 on one side and IPv6 on the other**. By way of example, if a website or an application is hosted in IPv6-only, that means it cannot be accessed by users who only have an IPv4 address.

The shortage of IPv4 addresses and the ensuing risks, mean that the transition to the new internet communication protocol has become **an especially pressing issue**.

To assess IPv6 deployment in France, Arcep uses data collected in accordance with its [Decision No. 2024-0589](#) along with [data from Afnic](#) to produce an annual Barometer of the Transition to IPv6 in France, providing an overview of IPv6 adoption in France. This Chapter covers the main findings of the [2025 edition](#).

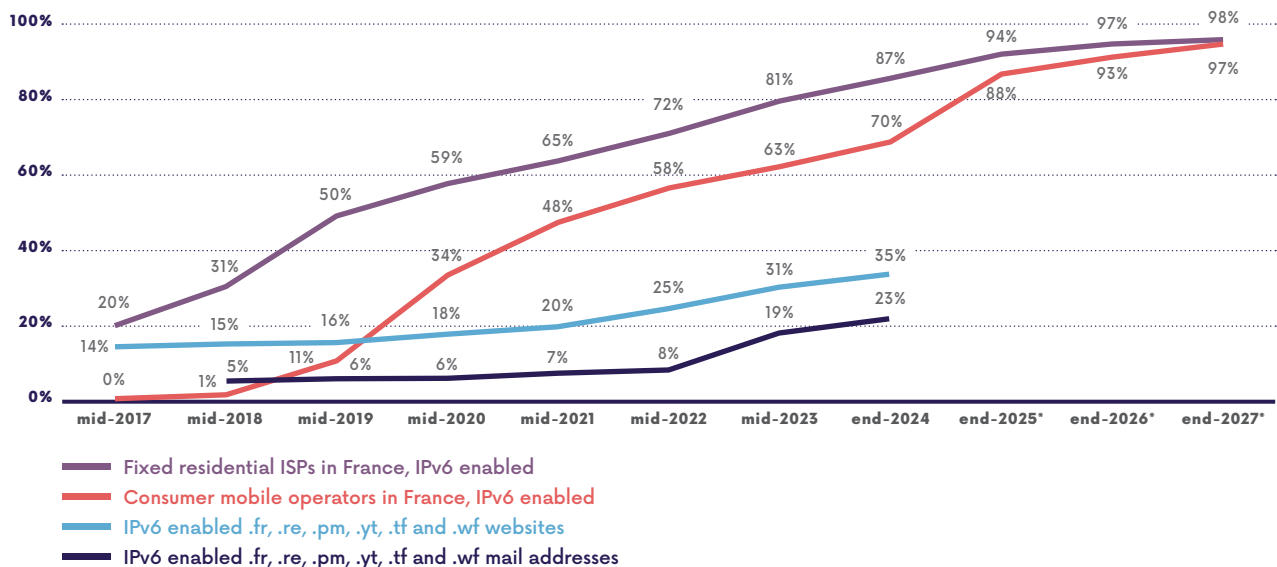
viders were IPv6-enabled, compared to 70% of mobile customers. With regards to content providers and hosting companies, 35% of websites were IPv6-ready (23% for email addresses). Although these figures are low, there has been a notable uptick in the pace of the transition. For email, the rate of IPv6 readiness almost tripled in two years. And virtually all residential customers are expected to be IPv6-enabled by 2027.<sup>1</sup>

## 2. STATE OF THE TRANSITION TO IPV6 IN 2024

### 2.1. A host of players, at different stages in their transition

Operators are making the transition to IPv6 more rapidly than web hosting companies and other content providers. At the end of 2024, 87% of customers of residential internet service pro

Status of the transition to IPv6 in France



\* Figures subject to change (operator forecasts, except for Free mobile: Arcep forecasts)

Operator source: data from end of December 2024, collected by Arcep from the main operators and aggregated according to market share as of Q3 2024. For the sake of the analysis, the assumption is that Android has a 61% market share and iOS 39%.  
Website and email source: Afnic data from December 2024.

<sup>1</sup> On fixed networks, by 2026, customers who do not have access to IPv6 will be on networks at the end of their life (ADSL/VDSL/cable), and the legacy copper network is due to be switched off by 2030. On mobile networks, the only devices that are not IPv6-enabled are old devices that will gradually be removed from circulation.

## 2.2. Fixed internet service providers

According to forecasts provided by operators, **the transition to IPv6 amongst residential customers should be virtually complete by the end of 2027** and could end in 2030 with the switchoff of the copper network. Some operators have chosen not to migrate infrastructures that are coming to the end of their life to the IPv6 protocol. For internet plans designed for businesses and professionals, the transition could take a few years longer.

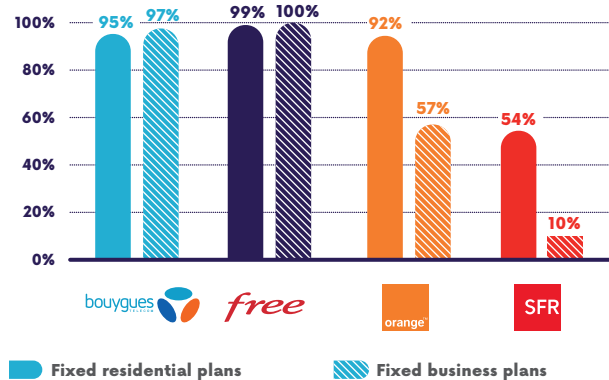
On **residential fixed networks**, Arcep notes significant disparities between the main French telecom operators' transition to IPv6:

- **Bouygues Telecom** enables IPv6 for all of its residential FttH, ADSL, VDSL, and 5G customers with a compatible modem/router connected to its own network. IPv6 is not yet available for ADSL or VDSL on a third-party backhaul network (these are Bouygues Telecom customers who are connected to an Orange DSLAM).
- **Free** enables IPv6 for all of its residential FttH, ADSL, and VDSL customers connected to its own network. IPv6 is not available for ADSL or VDSL on a third-party backhaul network (aka non "unbundled" customers) nor on 4G+/5G Free modem.
- **Orange** enables IPv6 for all of its residential FttH, ADSL, VDSL, 4G Home, and 5G Home customers with a compatible modem/router and connected to a network that assigns its DHCP addresses. IPv6 is not available for a small number of residential ADSL customers (addresses assigned via PPP). In addition, all new ADSL customers are assigned by DHCP scope.
- **SFR** is phasing out the replacement of network equipment that was not IPv6-compatible on the FttH network. IPv6 is not systematically enabled. It is, therefore, left up to the customer to do so by configuring their modem/router. At a time when the copper access network is gradually being switched off, in 2023 SFR elected to eliminate IPv6 support on ADSL/VDSL plans. IPv6 (encapsulated in IPv4) had previously been available with ADSL and VDSL plans but was not enabled by default (at the end of June 2022, 1% of ADSL and VDSL customers had enabled this option). IPv6 is also not available on the operator's cable network.

For "pro" plans designed for small businesses, operators emulate residential market strategies, with two exceptions:

- **Orange:** IPv6 was not offered to ADSL or VDSL "Pro" small business customers at the end of 2024, but should become available to all of these customers in 2025;
- **SFR:** IPv6 is only available for fixed 4G and 5G plans (no IPv6 for FttH, ADSL, VDSL, or cable plans for small businesses). The forecast up to the end of 2026 does not include any changes in this area for FttH plans.

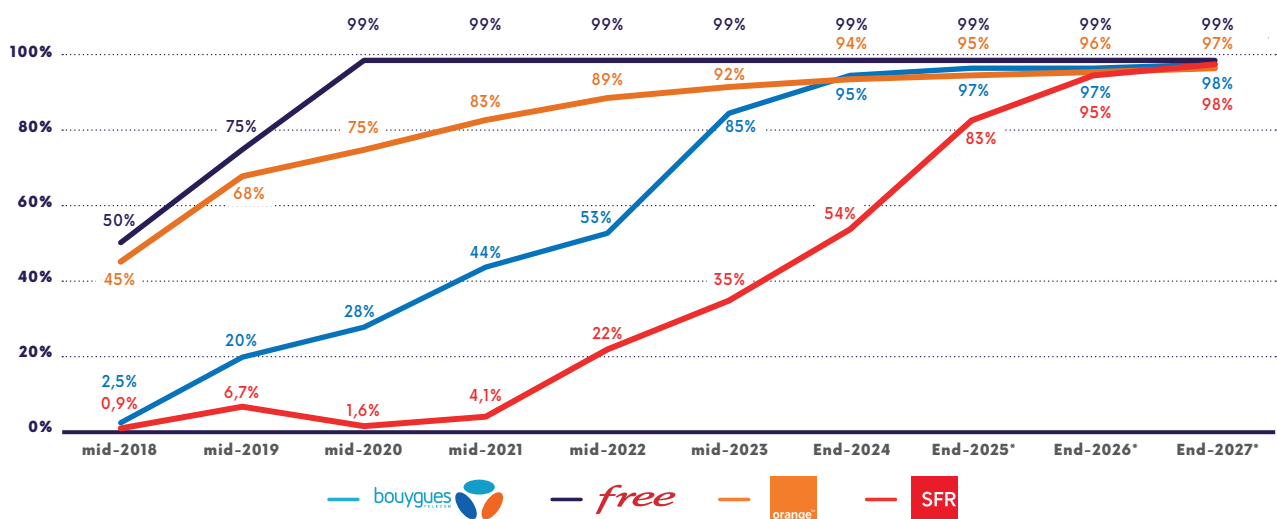
Fixed networks: percentage of IPv6-enabled customers



Source: Data as of end of December 2024, collected by Arcep from operators.

The transition to IPv6 for retail market operators with fewer than three million customers (in metropolitan and overseas France) is detailed in the annual [Arcep Barometer of the Transition to IPv6 in France](#). Arcep has observed the adoption of IPv6 by new operators every year, although a certain number of those with fewer than three million customers still do not offer IPv6.

Residential fixed network: progression of IPv6-enabled customers



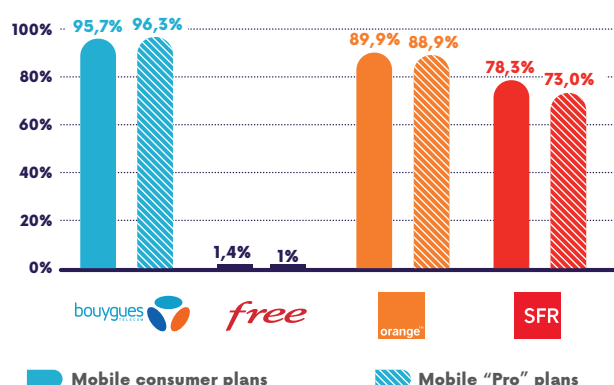
\*Figures subject to change

Source: Data as of end of December 2024, collected by Arcep from operators.

## 2.3. Mobile internet service providers

According to the forecasts provided by France's four largest ISPs, the transition of mobile access lines to IPv6 should be complete by the end of 2027, for both consumer and business customers. The transition could take longer for "data only" plans (4G/5G portable routers, tablets, computers, etc.). For the first time, the forecasts provided by Free indicate a significant increase in the rate of IPv6 activation on the operator's mobile network, anticipating a leap in the rate of IPv6-enabled lines from 1% at the end of 2024 to 77% by the end of 2025.

**Mobile network: percentage of IPv6-enabled customers**



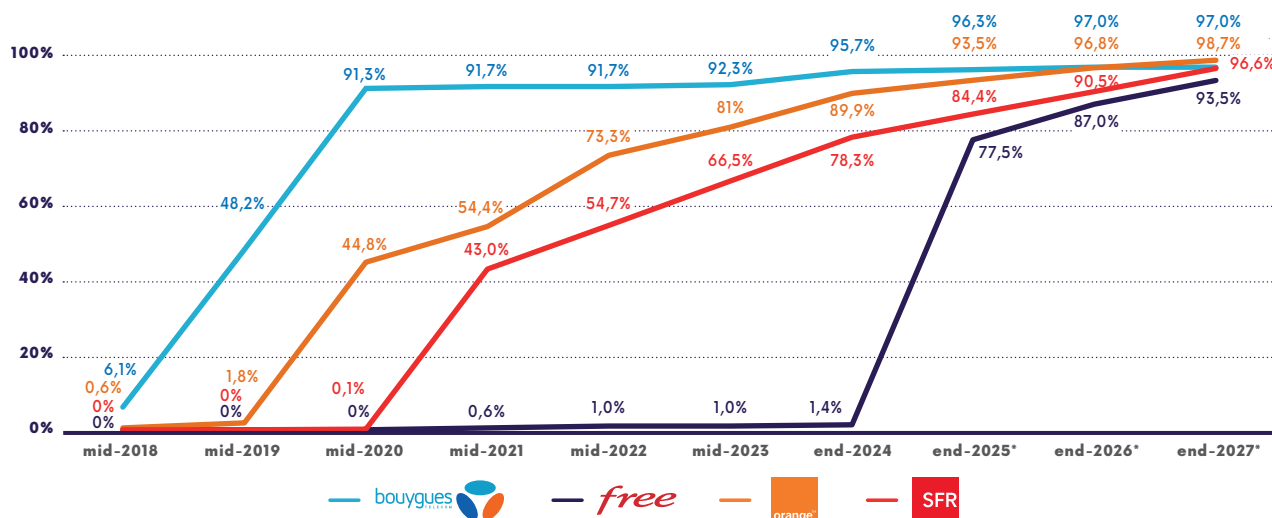
Source: Data as of end of 2024, collected by Arcep from operators and aggregated, with an assumed 61% market share for Android and 30% for iOS.

Arcep has observed sizeable disparities in the transition of **consumer mobile** plans to IPv6. Although all the main operators offer IPv6, there are real differences in their approach to enabling the protocol:

- **Android:** Bouygues Telecom, Orange, and SFR all enable IPv6 by default on Android phones released after 2018 (Bouygues), 2020 (Orange), and 2021 (SFR). At the end of 2024, Free had not enabled IPv6 by default. Free is expected to enable IPv6 for smartphones sold in 2022 onwards, over the course of 2025.
- **iPhone:** Bouygues Telecom, Orange, and SFR all enable IPv6 by default on iPhones with at least iOS 12.2 (Bouygues), iOS 13.0 (Orange for iPhone 7 and more recent), iOS 14.3 (SFR), and iOS 15.4 (Orange for iPhone 6S and SE). Free is expected to enable IPv6 by default in 2025 for iPhones running on iOS 15.4 and later.

For "Pro" **small business plans**, Bouygues Telecom, Orange, SFR, and Free offer IPv6 under the same terms as consumer plans.

**Consumer mobile network: percentage of IPv6-enabled customers**



\*Figures subject to change

Source: Data as of end of 2024, collected by Arcep from operators and aggregated, with an assumed 61% market share for Android and 30% for iOS.

## 2.4. Web hosting

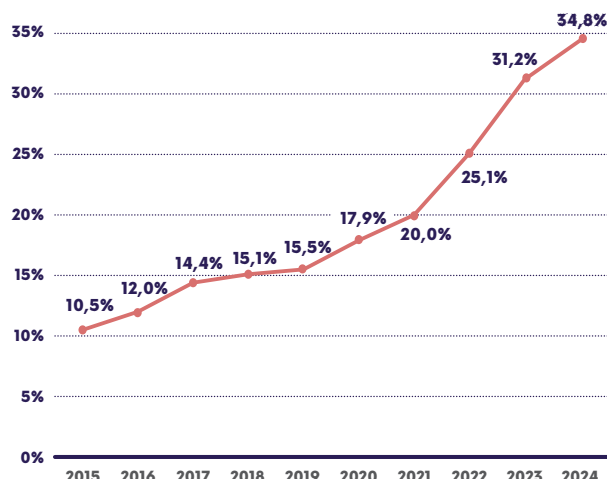
A website is considered accessible in IPv6 when it has a DNS IPv6 registration. To exclude a portion of the unused domain names, the rate is calculated using only domain names with a valid HTTPS certificate, which amounts to 2.4 million domain names ending in .fr, .re, .pm, .yt, .tf and .wf, which are analysed below.

At the end of 2024, web hosting companies were one of the weakest links in the migration to IPv6. **Only 34.8% of websites are in fact IPv6-ready.** There has nevertheless been a noteworthy 15-point increase since 2021. More domain names have been IPv6-enabled over the past two years than between 2015 and 2021.

Of the top 12 web hosting companies in France, only Cloudflare, IONOS, LWS, Hostinger, and Infomaniak have more than half the websites they host IPv6-enabled, setting an example to be followed.

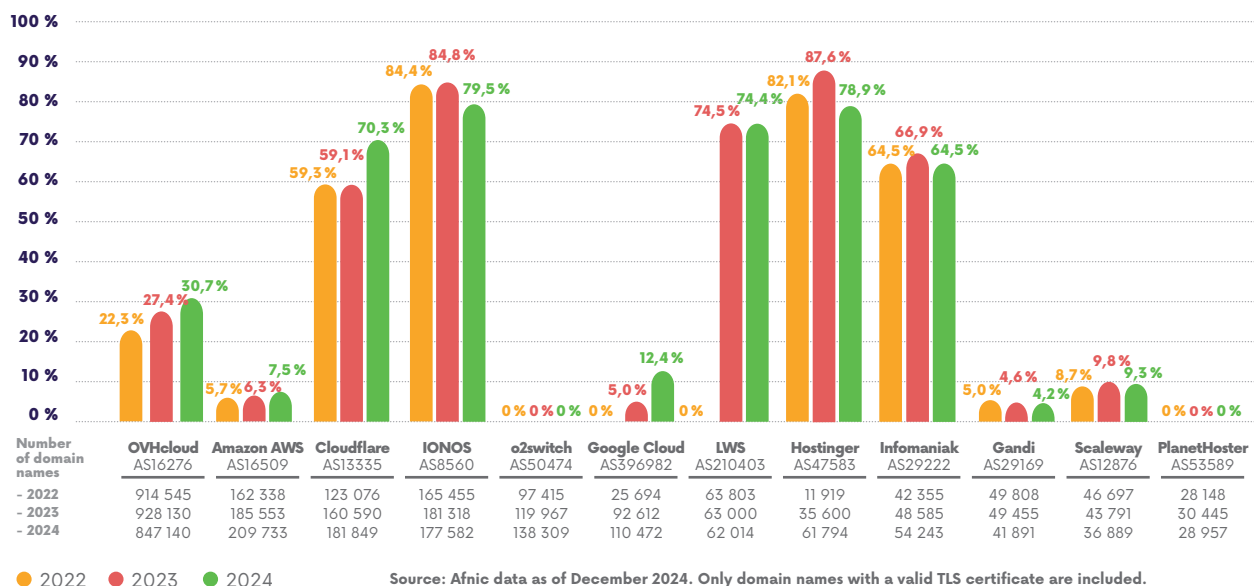
Data on all .fr, .re, .pm, .yt, .tf, and .wf web hosting companies are available in three formats: PDF, OpenDocument (which can be read with LibreOffice Calc or Excel), and CSV raw data.

Progression of IPv6-enabled websites  
for .fr, .re, .pm, .yt, .tf and .wf domain names



Source: Afnic data as of December 2024. Only domain names with a valid TLS certificate are included.

Percentage of IPv6-enabled websites  
for .fr, .re, .pm, .yt, .tf, and .wf domain names

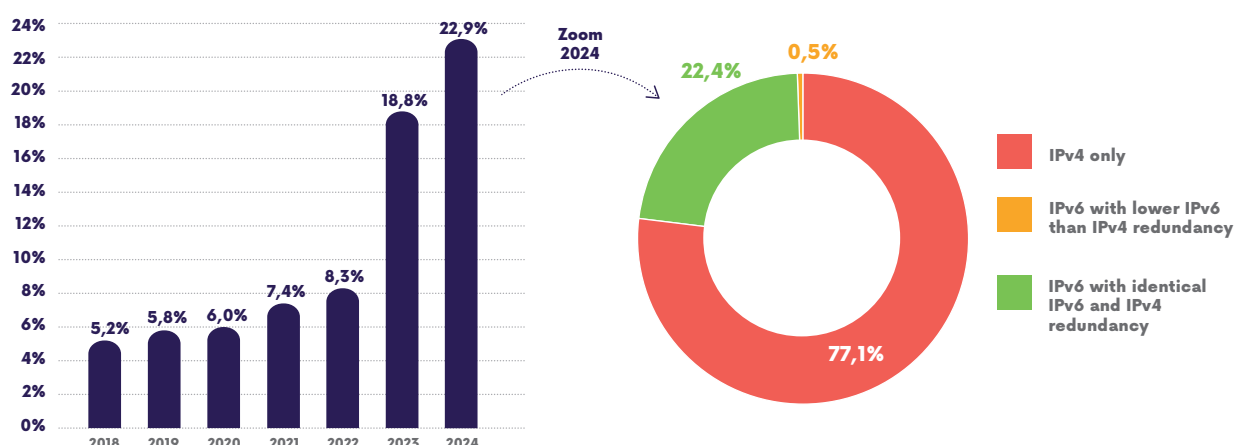


## 2.5. Email hosting companies

Mail hosting servers also lag a long way behind in the transition: only 22.9% of mail servers currently use IPv6 addresses.<sup>2</sup> There has, nevertheless, been a considerable increase over the past two years, during which the number of IPv6-enabled mail servers has increased by 15 points, compared to a three-point increase in the

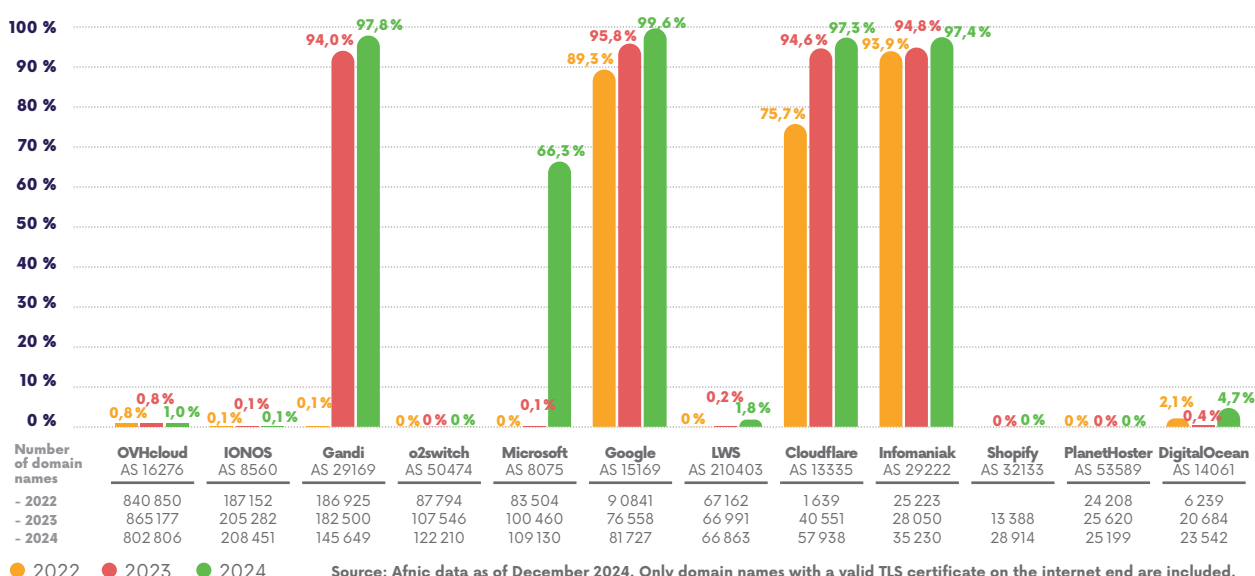
four previous years. This percentage nonetheless remains very small, compared to the other links in the internet chain.

**Percentage of web mail accessible in IPv6**  
for .fr, .re, .pm, .yt, .tf, and .wf domain names



Source: Afnic data as of December 2024.  
Only domain names with a valid TLS certificate are included.

**Percentage of IPv6-enabled mail servers**  
for .fr, .re, .pm, .yt, .tf, and .wf domain names



Source: Afnic data as of December 2024. Only domain names with a valid TLS certificate on the internet end are included.

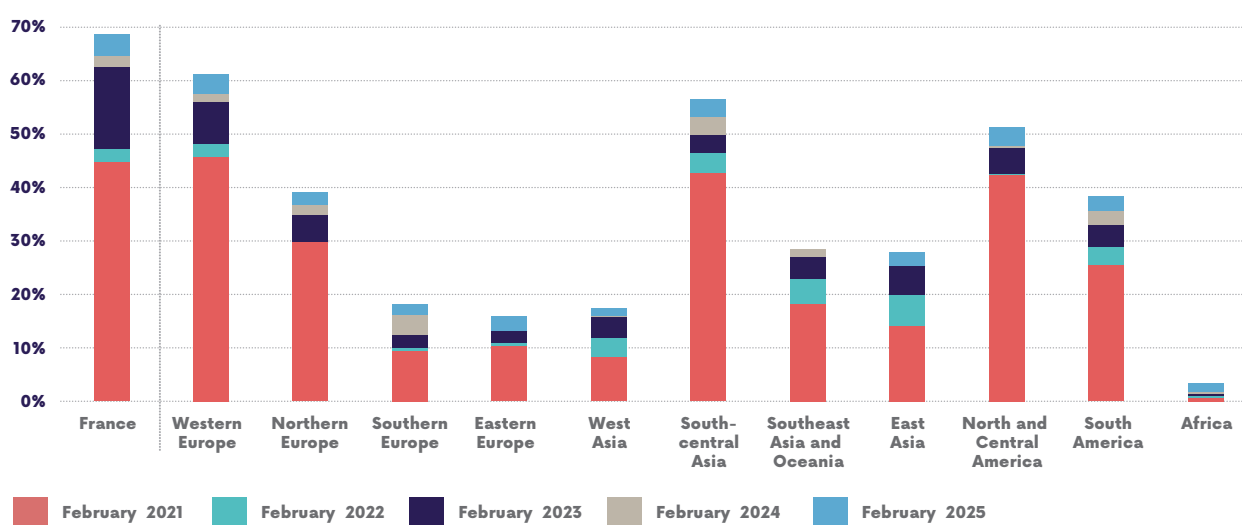
<sup>2</sup> Afnic data for the end of 2024, for all websites with domain names ending in .fr, .re, .pm, .yt, .tf, and .wf, excluding those that do not offer valid HTTPS hosting and an MX (Mail eXchanger).

### 3. THE TRANSITION TO IPV6 AROUND THE WORLD

Arcep has created [an interactive map](#) that lets users view both the rate of IPv6 adoption for internet access in the 100 countries with the most internet users and how the rankings have changed over time. The IPv6 adoption rate for internet access illustrated

on this map represents the percentage of users who have been IPv6-enabled by their ISP. This percentage is measured for hosting companies who already offer IPv6. It therefore provides an idea of the status of transition by device and internet service providers (residential and business, fixed and mobile), rather than the transition of hosting companies. **France ranks second worldwide (68.6%),** behind India (73.4%).

#### Regional IPv6 adoption rate



February 2025 IPv6 data from Google, Akamai, Facebook, and Apnic. Only the 100 countries with the most internet users are considered. The median of the four sources is calculated for each country, before being aggregated, prorated by the number of internet users in each region.



#### COUNTRIES MOVING TOWARDS SHUTTING DOWN THE IPV4 PROTOCOL ON THE INTERNET

- In **India**, major Indian websites are now only accessible in IPv6;
- **China** plans to completely shut down IPv4 in 2030 (cf. [2023 Barometer of the transition to IPv6](#));
- The **Czech government** has asked the public sector to stop providing e-government services using IPv4 as of

6 June 2032. Internet users who are not IPv6-ready in 2032 will no longer have access to Czech government websites, nor to the business applications that will follow suit and shut down IPv4 at the same time. A countdown has been created on <https://konecipv4.cz/en/>.



## **WORK BEING DONE BY THE IPV6 TASK FORCE**

Since 2019, Arcep has been heading up the IPv6 task force, in collaboration with Internet Society France. Open to all internet ecosystem stakeholders (telcos, hosting companies, businesses, public sector, etc.), this task force meets once a year and is geared to encouraging the transition to IPv6 by giving participants an opportunity to discuss specific issues and to share best practices.

The task force launched a new working group in 2025 called “IPv6 2030: requirements for a future IPv6 internet”, the purpose of which is to establish the conditions required to guarantee an accelerated transition to IPv6 between now and 2030.

The aim of this working group is to:

- Examine new challenges created by changes to the internet around IPv6 adoption and changes to networks in the era of AI;
- Investigate the conditions needed to enable the development of innovative services and end-to-end IPv6-only ultrafast, high quality network architectures.

At the next IPv6 France workshop, this working group will present a progress report on its analysis of the issues and challenges of the IPv6 transition and the future of the internet up to 2030.





# Giving the floor to

## PIERRE BONIS

*Chief Executive Officer of Afnic, the association for managing the domain name registry in France (Association française pour le nommage internet en coopération)*



## Measuring the transition to IPv6 in France. How Afnic contributes.

The transition to IPv6 may seem to be a highly technical challenge. And, indeed, in some respects it can be, which is why it is proceeding so slowly. Or at least, far slower than we would like.

For many ISPs, this transition requires the deployment of new addressing schemes and, for some, the acquisition of new hardware, even if today's equipment does make it possible to address resources in IPv6, and especially to allow the two IP protocols, the old v4 and the new IPv6, to cohabitate.

But as long as the – granted, not neutral – operational and technical aspects of the transition are held up to explain why progress has been so slow, we will overlook what is really at stake. The real issues are above all economic and political, as this change in protocol is vital to ensuring continuity of service for the global internet and, singularly, for the internet in France.

Arcep has been saying for many years (and since 2016 regarding cooperation between our two organisations) that the development of a safe and stable internet is only possible if operators have access to new blocks of IP addresses. There are no longer any available blocks of IPv4 addresses and, short of going onto a sort of secondary market, or a black market – which Afnic and all of the governing parties involved, starting with regional internet registries, formally advise against – making the transition to IPv6 is no longer optional.

To kick start this major transition, public authorities and governing technical bodies communicated well in advance about the need to migrate steadily to IPv6. But, as with any major change, it is only a sense of urgency and necessity that provide the powerful incentive needed to drive momentum. We could even say that, paradoxically, the wise foresight of those urging market players to make the transition has actually proven counterproductive. For a long time we've been saying there's still time!

When in fact, no. The more time goes on, the greater the risks of having a fragmented internet that would respond in either IPv4 or in IPv6. The more this resource that is so vital to the development of internet services increases in value (via the infamous IPv4 black market), the more painful the transition will be.

Which is why Afnic is proud to be working with Arcep to provide it with quantified information based on the requests it receives on its domain name servers, as the authority responsible for managing top-level internet domain names, and singularly .fr addresses.

This has helped to fine tune Arcep's Barometer which, in our view, is currently the most effective instrument for accelerating the pace of this transition.

To those who have not yet begun this transition, we say that you need to know that IPv6 is by now an unavoidable reality of the French internet. Choosing to ignore it will mean being sidelined in the not too distant future, and will drive up your operating costs.

Those who are moving forward on the path to deploying services that are compatible with both protocols, we say keep going, and especially be mindful to ensure that any mergers or takeovers, change in ownership, or transfers of customer portfolios that are part of French tech companies' day to day, do not lead to backsliding. These trends are visible, and it is up to all of us to ensure that they do not negatively affect the ongoing deployment of IPv6 in France.

One final observation is the sizeable disparities in IPv6 hosting between services (Web, domain names, mail...). These variations lead us to hope that swift progress will be made as tech companies have mastered and deployed IPv6 for certain services. They have the skills. And the operational experience. These are encouraging factors, and the Barometer gives us the ability to measure how much farther we have to go.

# Lexicon

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## 3GPP

The 3<sup>rd</sup> Generation Partnership Project is an umbrella organisation for cooperation between standard development organisations to establish technical specifications for mobile networks.

## 4G

The fourth generation of mobile telephony standards. It is defined by 3GPP Release 8 standards.

## 5G

The fifth generation of mobile telephony standards. It is defined by 3GPP Release 15 standards.

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## Afnic (Association française pour le nommage internet en coopération)

The French domain name registry. A non-profit organisation (under the French law of 1901), whose mandate is to manage top-level domain names in France (.fr), Reunion (.re), France's southern and Antarctic territories (.tf), Mayotte (.yt), Saint-Pierre-et-Miquelon (.pm), and Wallis-et-Futuna (.wf).

## API (Application Programming Interface)

Interface that enables two systems to interoperate and talk to one another without having been initially designed for that purpose. More specifically, a standardised set of classes, methods, or functions through which a software program provides services to other software programs.

## Autonomous Systems (AS)

A collection of networks managed by the same administrative entity, with relatively homogeneous routing protocols.

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## BEREC (Body of European Regulators for Electronic Communications)

Independent European body created by the Council of the European Union and the European Parliament, and which assembles the electronic communications regulators from the 27 European Union Member States.

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## CAP

Content (web pages, blogs, videos) and/or application (search engine, VoIP applications) providers.

## CDN (Content Delivery Network)

Internet content delivery network.

## Codec

A device or computer program that encodes or decodes a digital data stream, for transmission or storage purposes.

## Cross-traffic

The traffic generated during a QoS and/or QoE test by an application other than the one being used to perform the test, either on the same device or on another device connected to the same modem/router. Cross-traffic decreases the bandwidth available for the test.

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## DNS (Domain Name System)

Mechanism for translating internet domain names into IP addresses.

## Dual stack

Assigning both an IPv4 address and an IPv6 address to a device on the network.

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## FttH (Fibre-to-the-Home) network

Ultrafast electronic communications network, where fibre is pulled right into the customer's residential or business premises.

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## HTTP (Hypertext Transfer Protocol)

Client-server communication protocol developed for the World Wide Web.

## HTTPS

HTTP Secured through the use of SSL (secure socket layer) or TLS (transport layer security) protocols.

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## iOS

Mobile operating system developed by Apple for its mobile devices.

## IP (Internet Protocol)

Communication protocol that enables a single addressing service for any device used on the internet. IPv4 (IP version 4) is the protocol that has been used since 1983. IPv6 (IP version 6) is its successor.

## IPv6-enabled

Device or connection that actually transmits and receives traffic using IPv6 routing, either through activation by the customer or activation performed by the operator.

## IPv6-ready

Device or connection that is compatible with IPv6, but on which IPv6 is not necessarily activated by default.

## ISP

Internet Service Provider.

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## IXP (Internet Exchange Point) or GIX (Global Internet Exchange)

Physical infrastructure enabling the ISPs and CAPs connected to it to exchange internet traffic between their networks through public peering agreements.

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## NAT

Network Address Translation: mechanism for remapping one IP address space to another, used in particular to limit the number of public IPv4 addresses being used.

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## Network termination point

The physical location at which a user gains access to public electronic communications networks.

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### NRA (National Regulatory Authority)

A body mandated by a BEREC Member State to regulate electronic communications.

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### On-net CDN

Content delivery network (CDN) located directly in an ISP's network.

### OS (Operating System)

Software that runs a peripheral device, such as Windows, Mac OS, Linux, Android, or iOS.

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### Peering

The process of exchanging internet traffic between two peers. A peering link can be either free or paid (for the peer that sends more traffic than the other peer). Peering can be public, when performed at an IXP (Internet Exchange Point), or private when over a PNI (Private Network Interconnect), in other words a direct interconnection between two operators.

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### QoS (Quality of Service)

In Chapter 1, quality of service on the internet as measured by "technical" indicators such as download or upload speed, latency, and jitter. The term QoS is often used to refer to both technical quality and quality of experience (QoE).

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### RFC (Request For Comments)

Official memorandum that describes the technical aspects and specifications that apply to the working of the internet or to different computer hardware.

### RIPE NCC (Regional Internet Registry for Europe, the Middle East, and Central Asia, Network Coordination Centre)

An organisation that is distinct from RIPE (Réseaux IP Européens), it is an open forum of internet companies, but provides administrative and logistical support for RIPE. RIPE NCC is also responsible for distributing IP address resources between the ISPs requesting them. Every network is assigned an AS, which then serves to identify that network for routing and interconnection purposes.

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### Specialised service

Electronic communication service(s) that is distinct from internet access services, and which requires specific quality of service levels.

### Speed

Also referred to as throughput. Quantity of digital data transmitted within a set period of time. Connection speeds or bitrates, are often expressed in bits per second (bit/s) and its multiples: Mb/s, Gb/s, Tb/s, etc. It is useful to draw a distinction between the speed at which data can be:

- received by a piece of terminal equipment connected to the internet, such as when watching a video online or loading a web page. This is referred to as download or downlink speed;
- sent from a computer, phone or any other piece of terminal equipment connected to the internet, such as when sending photos to an online printing site. This is referred to as upload or uplink speed.

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### Tier 1

Network capable of reaching every other internet network through peering without requiring a transit provider. Wikipedia lists 14 Tier 1 networks in 2025:

- Arelion (formerly Telia Carrier);
- AT&T;
- Deutsche Telekom AG;
- Global Telecom & Technology (GTT Communications);
- Liberty Global;
- Lumen (formerly CenturyLink then Level 3);
- NTT Communications;
- Orange;
- PCCW Global;
- Tata Communications;
- Telecom Italia Sparkle;
- Telxius/Telefónica;
- Verizon Enterprise Solutions;
- Zayo Group.

Depending on the criteria, some operators, such as Cogent, may not be considered to be Tier 1.

### TLS (Transport Layer Security)

Used for encrypting internet exchanges and server authentication.

### Transit provider

Company that provides transit services.

### Transit

Bandwidth that one operator sells to a client operator, providing access to the entire internet as part of paid, contractual service.

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### UDP (User Datagram Protocol)

Simple, connectionless (i.e. no prior communication required) transmission protocol, which makes it possible to transmit small quantities of data rapidly. The UDP protocol is used on top of IPv4 or IPv6.

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### VoIP (Voice over IP)

Technology for relaying voice calls over IP-compatible networks via the internet.

### VPN (Virtual Private Network)

Inter-network connection for connecting two local networks using a tunnel protocol.

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### WAN (Wide Area Network)

In this report, WAN refers to the internet network, as opposed to a LAN (local area network).

### Web tester

Tool for measuring QoS and QoE which is accessed through a website.

### Wehe

Android and iOS application, developed by Northeastern University in partnership with Arcep, to detect traffic management practices that are in violation of net neutrality rules.

### Wi-Fi

Wireless communication protocol governed by IEEE 802.11 group standards.

### xDSL (Digital Subscriber Line)

Electronic communications technologies used on copper networks that enable ISPs to provide broadband or superfast broadband

internet access. ADSL2+ and VDSL2 are the most commonly used xDSL standards in France for providing consumer access.

### Zero-rating

A pricing practice that allows subscribers to use one or more particular online application without the traffic being counted against their data allowance.

# ARCEP, NETWORKS AS A COMMON GOOD

The internet, fixed and mobile electronic communication networks, data centres, as well as postal and press distribution networks constitute “infrastructures of freedom”. Freedom of expression, freedom to communicate, freedom to access knowledge and to share it, but also freedom of enterprise and innovation, all of which are key to the country’s economic development and cohesion within Europe.

Because it is essential to be able to enjoy these freedoms fully, national and European institutions work to ensure that these networks develop as a “common good” regardless of their ownership structure, in other words that they meet the highest standards in terms of accessibility, universality, performance, neutrality, trustworthiness and sustainability.

The genesis of the Regulatory Authority for Electronic Communications, Postal Affairs and Press Distribution (Arcep) was the acknowledgement that independent state oversight was needed to ensure that no power, be it economic or political, is in a position to control or hinder citizens’, businesses’, associations’, publishers’ or innovators’ ability to communicate or trade. A neutral and expert arbitrator with the status of independent administrative authority, Arcep is the **architect and guardian** of communication networks’ status as common goods in France.

**As network architect**, Arcep creates the conditions for an open and decentralised network organisation. It works to safeguard the competitiveness of the sectors it is responsible for regulating, by promoting pro-investment competition. It provides the framework for the networks’ interoperability so that, despite their diversity, they remain easy to access and seamlessly interconnected. It coordinates effective interaction between public and private sector stakeholders, particularly when local authorities are involved. It provides the trustworthiness needed for data intermediation between different enterprises. It also creates the conditions for open and competitive access to cloud computing solutions for businesses.

**As network guardian**, Arcep enforces the principles that are essential to safeguarding all users’ current and future ability to communicate and trade. It oversees the provision of the Universal Service and assists public authorities in guaranteeing the most extensive access possible to high-quality and resilient networks nationwide. It ensures users’ access to clear and accurate information, their freedom of choice, and protects against possible neutrality violations on both the internet and in the press. More generally, Arcep combats any type of impediment that could threaten the freedom to communicate and trade on the networks or the free movement of data and, to this end, pays close attention to the intermediaries that are devices and the internet’s gatekeeper platforms. For the sake of generations to come, the Authority is dedicated to future-proofing digital technology and its uses, measuring the progression of its environmental footprint, and making sustainability a core tenet of its regulatory actions.

## MANIFESTO