





#### Press release

# Summary of the workshop dedicated to IPv6 development and advancement in France, held on 7 December 2023

- 22 December 2023 -

On 7 December 2023, <u>IDATE</u>, <u>Arcep</u> and the <u>IPv6 Forum</u> hosted a workshop at the Arcep offices devoted to the development and advancement of IPv6 in France. The shortage of IPv4 addresses at the end of 2019 signalled loud and clear that every internet player needed to accelerate their migration to IPv6. Continuing to maintain the IPv4 protocol jeopardises the ongoing smooth operation of the internet, notably in terms of accessing services and IP address identification. Making the transition to IPv6 is therefore the only future-proof solution to ensure that the internet remains a place of innovation and competitiveness, in a way that benefits users.

The workshop brought together more than 90 people from a range of backgrounds: experts, internet industry professionals and afficionados to discuss the progress that has been made thus far, and the trends and challenges surrounding the adoption of IPv6. IDATE, Arcep and the IPv6 Forum would like to thank everyone who participated in this event. Videos of all of the talks from the workshop are available on Arcep's Dailymotion channel.

## Tackling the issues and understanding the benefits of making the transition to IPv6

Arcep Executive Board member, Serge Abiteboul, and IDATE Chair and CEO, Jean-Luc Lemmens, kicked off the workshop by stressing the importance of this transition to IPv6: "The goal is not to keep two protocols. The goal is to shut down IPv4 at some point. We're not there yet, but we do have to prepare for it. We need to map out shutdown scenarios to know how we can manage, in a not too distant future, to shut down IPv4 completely". (video)

Asmaa Zaher, IDATE's Director of studies, provided an overview of the transition to IPv6 (presentation and video). Vivien Guéant, one of Arcep's internet experts, presented the annual Barometer of the transition to IPv6, along with an interactive map of the rate of IPv6 adoption in the different countries (presentation and video).

**IPv6 Forum** Chair, Latif Ladid, then spoke about the features of the new internet, the benefits of IPv6, and analysed global IP industry trends up to 2030 (<u>presentation</u> and <u>video</u>). Tayeb Ben Meriem, Vice Chair of IPv6 Forum, focused on the contributions of "IPv6 Enhanced" in terms of end-to-end quality of experience (<u>presentation</u> and <u>video</u>).

### Supporting players in their transition with practical applications and concrete solutions

The workshop provided a forum for a series of discussions moderated by experts in the field. Event highlights included sessions on IPv6 research and development, practical applications and concrete solutions:







- 6LoWPAN research projects, an evolution in network protocols to enable IPv6 in the Internet of Things (IoT) sector, by Laurent Toutain and Alexander Pelov (presentation and video)
- Addressing and the IPv6 transition by François Bouju, IP Backbone architect at Bouygues Telecom (presentation and video)
- Introduction to IPv6 at EDF by Pierre Violet, Telecom programme Director at EDF (presentation and video)
- IPv6 enabled computers over LoRa by Rémi Demerlé, Director of Marketing at SEMTECH (presentation and video)
- IPv6 in the workplace by Fayçal Hadj, IPv6 specialist at Cisco (presentation and video)
- IPv6 Network Slicing by Jérémie Leguay, chief Expert, Head of Network and Traffic Optimization team at Huawei (presentation and video)
- Introduction to SRv6, technology used in next-gen networks to improve routing and traffic
  management efficiency, by Jean-Charles Bisecco, IPv6 specialist and member of IPv6 in France
  Task Force (presentation and video). He also talked about providing operators with IPv6
  support, beyond simply assigning addresses (presentation and video).

During the workshop, four video courses produced by École Polytechnique, IMT Atlantique and Jean-Charles Bisecco were made available online.

#### The four courses are on:

- IPv6 and the Internet of Things: 6LoWPAN, RPL, Matter, LPWAN and SCHC by IMT Atlantique (Laurent Toutain, Pascal Thubert, David Le Goff and Rémi Demerlé): video
- **SRv6** (Segment Routing over IPv6 dataplane): introduction to the protocol, by the Institut Polytechnique de Paris (Kevin Jiokeng and Thomas Clausen): <u>video</u>
- **SRv6** (Segment Routing over IPv6 dataplane): deployment strategy, by Jean-Charles Bisecco: <u>presentation</u> <u>video</u>
- **BIERv6** (Bit Index Explicit Replication IPv6 encapsulation) by the Institut Polytechnique de Paris (Kevin Jiokeng and Thomas Clausen): <u>video</u>.