



France - 2020 Forecast Highlights

IP Traffic

- In France, IP traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 19%.
- In France, IP traffic will reach 3.9 Exabytes per month in 2020, up from 1.7 Exabytes per month in 2015.
- France's IP networks will carry 128 Petabytes per day in 2020, up from 55 Petabytes per day in 2015.
- In France, IP traffic will reach an annual run rate of 46.9 Exabytes in 2020, up from an annual run rate of 19.9 Exabytes in 2015.
- In France, IP traffic will reach 59 Gigabytes per capita in 2020, up from 26 Gigabytes per capita in 2015.
- In France, average IP traffic will reach 12 Tbps in 2020, and busy hour traffic will reach 67 Tbps.
- In 2020, the gigabyte equivalent of all movies ever made will cross France's IP networks every 1 hours.

Internet Traffic

- In France, Internet traffic will grow 2.7-fold from 2015 to 2020, a compound annual growth rate of 22%.
- In France, busy hour Internet traffic will grow 4.1-fold from 2015 to 2020, a compound annual growth rate of 32%.
- In France, Internet traffic will reach 3.3 Exabytes per month in 2020, up from 1.2 Exabytes per month in 2015.
- France's Internet traffic will be 109 Petabytes per day in 2020, up from 40 Petabytes per day in 2015.
- France's Internet traffic in 2020 will be equivalent to 10 billion DVDs per year, 832 million DVDs per month, or 1 million DVDs per hour.
- In 2020, the gigabyte equivalent of all movies ever made will cross the Internet every 2 hours.

- French Internet traffic in 2020 will be equivalent to 40x the volume of the entire French Internet in 2005.
- In France, Internet traffic will reach 51 Gigabytes per capita in 2020, up from 19 Gigabytes per capita in 2015.
- In France, average Internet traffic will increase 2.7-fold by 2020 and will reach 10 Tbps.
- In France, busy hour Internet traffic will increase 4.1-fold by 2020 and will reach 57 Tbps.

Wired Wi-Fi and Mobile Growth

- France's Fixed/Wi-Fi was 43% of total IP traffic in 2015, and will be 54% of total IP traffic in 2020.
- France's Fixed/Wired was 54% of total IP traffic in 2015, and will be 36% of total IP traffic in 2020.
- France's Mobile was 3% of total IP traffic in 2015, and will be 9% of total IP traffic in 2020.
- France's Fixed/Wi-Fi was 55.5% of total Internet traffic in 2015, and will be 63.0% of total Internet traffic in 2020.
- France's Fixed/Wired was 40% of total Internet traffic in 2015, and will be 26% of total Internet traffic in 2020.
- France's Mobile was 4.4% of total Internet traffic in 2015, and will be 10.7% of total Internet traffic in 2020.

IP Video

- In France, IP video traffic will grow 3-fold from 2015 to 2020, a compound annual growth rate of 22%.
- In France, IP video traffic will reach 3.3 Exabytes per month in 2020, up from 1.2 Exabytes per month in 2015.
- In France, IP video will be 83% of all IP traffic in 2020, up from 74% in 2015.
- In France, Ultra HD will be 14.6% of IP Video traffic in 2020, up from 1.1% in 2015 (102.3% CAGR).
- In France, HD will be 66.6% of IP Video traffic in 2020, up from 51.4% in 2015 (28.0% CAGR).
- In France, SD will be 18.8% of IP Video traffic in 2020, compared to 47.4% in 2015 (1.0% CAGR).
- In France, consumer IP video traffic will be 87% of consumer IP traffic in 2020, up from 80% in 2015.
- In France, business IP video traffic will be 67% of business IP traffic in 2020, up from 44% in 2015.

Internet Video

- In France, Internet video traffic will grow 3-fold from 2015 to 2020, a compound annual growth rate of 27%.
- In France, Internet video traffic will reach 2.7 Exabytes per month in 2020, up from 835 Petabytes per month in 2015.
- In France, total Internet video traffic (business and consumer, combined) will be 81% of all Internet traffic in 2020, up from 68% in 2015.
- In France, Ultra HD will be 14.6% of Internet video traffic in 2020, up from 1.4% in 2015 (102.5% CAGR).
- In France, HD will be 68.8% of Internet video traffic in 2020, up from 48.9% in 2015 (35.5% CAGR).
- In France, SD will be 16.6% of Internet video traffic in 2020, compared to 49.8% in 2015 (1.6% CAGR).
- In France, consumer Internet video traffic will be 84% of consumer Internet traffic in 2020, up from 73% in 2015.
- In France, business Internet video traffic will be 68% of business Internet traffic in 2020, up from 46% in 2015.

- In France, Internet-Video-to-TV traffic will be 28% of fixed consumer Internet video traffic in 2020, up from 27% in 2015.
- In France, Internet-Video-to-TV traffic will increase 3-fold between 2015 and 2020 (25.7% CAGR).
- In France, 61 billion minutes (116,469 years) of video content will cross the Internet each month in 2020. That's 23,294 minutes of video streamed or downloaded every second.
- In France, 98% of all Internet video traffic will cross content delivery networks in 2020, up from 75% in 2015.
- In France, 87% of all Internet traffic will cross content delivery networks in 2020, up from 61% in 2015.

IP VOD

- In France, Ultra HD will be 15.9% of IP VOD traffic in 2020, up from 0.7% in 2015 (101.3% CAGR).
- In France, HD will be 59.2% of IP VOD traffic in 2020, up from 59.8% in 2015 (6.4% CAGR).
- In France, SD will be 24.9% of IP VOD traffic in 2020, compared to 39.6% in 2015 (-2.8% CAGR).

Gaming

- In France, Internet gaming traffic will grow 7-fold from 2015 to 2020, a compound annual growth rate of 49%.
- In France, Internet gaming traffic will reach 2.7 Exabytes per month in 2020, up from 835 Petabytes per month in 2015.
- In France, Internet gaming traffic will be 5% of consumer Internet traffic in 2020, up from 2% in 2015.

Mobile

- In France, mobile data traffic will grow 7-fold from 2015 to 2020, a compound annual growth rate of 46%.
- In France, mobile data traffic will reach 357 Petabytes per month in 2020, up from 54 Petabytes per month in 2015.
- French mobile data traffic will grow 3 times faster than French fixed IP traffic from 2015 to 2020.
- France's Mobile was 3% of total IP traffic in 2015, and will be 9% of total IP traffic in 2020.
- In France, mobile data traffic in 2020 will be equivalent to 4x the volume of the entire French Internet in 2005.

Devices

- In France, there will be 588.5 million networked devices in 2020, up from 323.6 million in 2015.
- In France, there will be 9.0 networked devices per capita in 2020, up from 5.0 per capita in 2015.
- In France, 28% of all networked devices will be mobile-connected in 2020.
- In France, M2M modules will account for 58% (342.8 million) of all networked devices in 2020, compared to 38% (123.1 million) in 2015, (22.7% CAGR).
- In France, PCs will account for 6% (37.5 million) of all networked devices in 2020, compared to 13% (40.7 million) in 2015, (-1.6% CAGR).
- In France, Tablets will account for 4% (20.7 million) of all networked devices in 2020, compared to 5% (16.4 million) in 2015, (4.8% CAGR).
- In France, Smartphones will account for 11% (63.5 million) of all networked devices in 2020, compared to 16% (51.8 million) in 2015, (4.1% CAGR).

- In France, Connected TVs will account for 16% (93.0 million) of all networked devices in 2020, compared to 19% (60.4 million) in 2015, (9% CAGR).
- In France, Non-Smartphones will account for 0.1% (778161) of all networked devices in 2020, compared to 3% (9.4 million) in 2015, (-39.2% CAGR).
- In France, Other Portables will account for 5% (30.2 million) of all networked devices in 2020, compared to 7% (21.8 million) in 2015, (6.8% CAGR).
- In France, 4K TVs will account for 32% (12.0 million) of all flat panel TVs in 2020, compared to 6.5% (842,445) in 2015, (70.1% CAGR).
- France's IP traffic from non-PC devices was 46% of total IP traffic in 2015, and will be 67% of total IP traffic in 2020.
- In France, PCs accounted for 54% of IP traffic in 2015, and will be 33% of IP traffic in 2020.
- In France, TVs accounted for 33% of IP traffic in 2015, and will be 27% of IP traffic in 2020.
- In France, Smartphones accounted for 6% of IP traffic in 2015, and will be 22% of IP traffic in 2020.
- In France, Tablets accounted for 4% of IP traffic in 2015, and will be 14% of IP traffic in 2020.
- In France, M2M modules accounted for 1.9% of IP traffic in 2015, and will be 4.5% of IP traffic in 2020.
- In France, PCs accounted for 65% of consumer Internet traffic in 2015, and will be 36% of consumer Internet traffic in 2020.
- In France, TVs accounted for 17% of consumer Internet traffic in 2015, and will be 19% of consumer Internet traffic in 2020.
- In France, TVs accounted for 14% of total Internet traffic in 2015, and will be 16% of total Internet traffic in 2020.

Speed Evolution

- In France, the average fixed broadband speed will grow 2.5-fold from 2015 to 2020, from 20.2 Mbps to 50.9 Mbps.
- In France, 78% of fixed broadband connections will be faster than 5 Mbps in 2020, up from 66% today.
- In France, 56% of fixed broadband connections will be faster than 10 Mbps in 2020, up from 45% today.
- In France, 29.3% of fixed broadband connections will be faster than 25 Mbps in 2020, up from 24.7% today.
- In France, 26.7% of fixed broadband connections will be faster than 50 Mbps in 2020, up from 15.9% today.
- In France, the average Wi-Fi speeds from mobile devices will grow 2.7-fold from 2015 to 2020, from 11.0 Mbps to 30 Mbps.
- In France, the average mobile connection speed will grow 3-fold from 2015 to 2020, reaching 16 Mbps in 2020.

Traffic per User and Household

- In France, the average Internet user will generate 43.7 gigabytes of Internet traffic per month in 2020, up 142% from 18.0 gigabytes per month in 2015, a CAGR of 19%.
- In France, the average Internet household will generate 92.4 gigabytes of Internet traffic per month in 2020, up 141% from 38.3 gigabytes per month in 2015, a CAGR of 19%.
- In France, the average FTTx Internet household will generate 155.8 gigabytes of Internet traffic per month in 2020, 122.4% more than other broadband households.

- In France, the average FTTx Internet household generated 95.6 gigabytes of Internet traffic per month in 2015, 163.5% more than other broadband households.
- In France, there will be 3 million Internet households (11.0% of all Internet households) generating more than 250 gigabytes per month in 2020.
- In France, there will be 789,293 households (3.0% of all Internet households) generating more than 500 gigabytes per month in 2020.
- In France, there will be 263,098 households (1.0% of all Internet households) generating more than a terabyte per month in 2020.
- In France, the average mobile connection will generate 4,169 megabytes of mobile data traffic per month in 2020, up from 760 megabytes in 2015.