



Spain - 2020 Forecast Highlights

IP Traffic

- In Spain, IP traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 18%.
- In Spain, IP traffic will reach 2.1 Exabytes per month in 2020, up from 917 Petabytes per month in 2015.
- Spain's IP networks will carry 69 Petabytes per day in 2020, up from 30 Petabytes per day in 2015.
- In Spain, IP traffic will reach an annual run rate of 25.2 Exabytes in 2020, up from an annual run rate of 11.0 Exabytes in 2015.
- In Spain, IP traffic will reach 46 Gigabytes per capita in 2020, up from 20 Gigabytes per capita in 2015.
- In Spain, average IP traffic will reach 6 Tbps in 2020, and busy hour traffic will reach 38 Tbps.
- In 2020, the gigabyte equivalent of all movies ever made will cross Spain's IP networks every 3 hours.

Internet Traffic

- In Spain, Internet traffic will grow 2.4-fold from 2015 to 2020, a compound annual growth rate of 20%.
- In Spain, busy hour Internet traffic will grow 3.8-fold from 2015 to 2020, a compound annual growth rate of 31%.
- In Spain, Internet traffic will reach 1.9 Exabytes per month in 2020, up from 776 Petabytes per month in 2015.
- Spain's Internet traffic will be 62 Petabytes per day in 2020, up from 30 Petabytes per day in 2015.
- Spain's Internet traffic in 2020 will be equivalent to 6 billion DVDs per year, 474 million DVDs per month, or 648,649 DVDs per hour.
- In 2020, the gigabyte equivalent of all movies ever made will cross the Internet every 3 hours.
- In Spain, Internet traffic will reach 41 Gigabytes per capita in 2020, up from 17 Gigabytes per capita in 2015.

- In Spain, average Internet traffic will increase 2.4-fold by 2020 and will reach 6 Tbps.
- In Spain, busy hour Internet traffic will increase 3.8-fold by 2020 and will reach 34 Tbps.

Wired Wi-Fi and Mobile Growth

- Spain's Fixed/Wi-Fi was 56% of total IP traffic in 2015, and will be 62% of total IP traffic in 2020.
- Spain's Fixed/Wired was 40% of total IP traffic in 2015, and will be 26% of total IP traffic in 2020.
- Spain's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- Spain's Fixed/Wi-Fi was 62.9% of total Internet traffic in 2015, and will be 67.5% of total Internet traffic in 2020.
- Spain's Fixed/Wired was 33% of total Internet traffic in 2015, and will be 20% of total Internet traffic in 2020.
- Spain's Mobile was 4.5% of total Internet traffic in 2015, and will be 12.7% of total Internet traffic in 2020.

IP Video

- In Spain, IP video traffic will grow 3-fold from 2015 to 2020, a compound annual growth rate of 25%.
- In Spain, IP video traffic will reach 1.6 Exabytes per month in 2020, up from 527 Petabytes per month in 2015.
- In Spain, IP video will be 78% of all IP traffic in 2020, up from 57% in 2015.
- In Spain, Ultra HD will be 15.0% of IP Video traffic in 2020, up from 1.3% in 2015 (104.8% CAGR).
- In Spain, HD will be 71.5% of IP Video traffic in 2020, up from 51.6% in 2015 (33.9% CAGR).
- In Spain, SD will be 13.5% of IP Video traffic in 2020, compared to 47.1% in 2015 (-2.3% CAGR).
- In Spain, consumer IP video traffic will be 82% of consumer IP traffic in 2020, up from 64% in 2015.
- In Spain, business IP video traffic will be 63% of business IP traffic in 2020, up from 35% in 2015.

Internet Video

- In Spain, Internet video traffic will grow 3-fold from 2015 to 2020, a compound annual growth rate of 28%.
- In Spain, Internet video traffic will reach 1.5 Exabytes per month in 2020, up from 422 Petabytes per month in 2015.
- In Spain, total Internet video traffic (business and consumer, combined) will be 77% of all Internet traffic in 2020, up from 54% in 2015.
- In Spain, Ultra HD will be 15.9% of Internet video traffic in 2020, up from 1.5% in 2015 (104.2% CAGR).
- In Spain, HD will be 74.1% of Internet video traffic in 2020, up from 52.2% in 2015 (37.5% CAGR).
- In Spain, SD will be 10.0% of Internet video traffic in 2020, compared to 46.3% in 2015 (-5.7% CAGR).
- In Spain, consumer Internet video traffic will be 80% of consumer Internet traffic in 2020, up from 58% in 2015.
- In Spain, business Internet video traffic will be 65% of business Internet traffic in 2020, up from 38% in 2015.
- In Spain, Internet-Video-to-TV traffic will be 19% of fixed consumer Internet video traffic in 2020, up from 20% in 2015.
- In Spain, Internet-Video-to-TV traffic will increase 3-fold between 2015 and 2020 (23.7% CAGR).

- In Spain, 44 billion minutes (84,200 years) of video content will cross the Internet each month in 2020. That's 16,840 minutes of video streamed or downloaded every second.
- In Spain, 68% of all Internet video traffic will cross content delivery networks in 2020, up from 56% in 2015.
- In Spain, 58% of all Internet traffic will cross content delivery networks in 2020, up from 36% in 2015.

IP VOD

- In Spain, Ultra HD will be 9.6% of IP VOD traffic in 2020, up from 0.3% in 2015 (114.5% CAGR).
- In Spain, HD will be 62.6% of IP VOD traffic in 2020, up from 56.7% in 2015 (11.7% CAGR).
- In Spain, SD will be 27.8% of IP VOD traffic in 2020, compared to 42.9% in 2015 (0.4% CAGR).

Gaming

- In Spain, Internet gaming traffic will grow 6-fold from 2015 to 2020, a compound annual growth rate of 44%.
- In Spain, Internet gaming traffic will reach 1.5 Exabytes per month in 2020, up from 422 Petabytes per month in 2015.
- In Spain, Internet gaming traffic will be 5% of consumer Internet traffic in 2020, up from 2% in 2015.

Mobile

- In Spain, mobile data traffic will grow 7-fold from 2015 to 2020, a compound annual growth rate of 47%.
- In Spain, mobile data traffic will reach 240 Petabytes per month in 2020, up from 35 Petabytes per month in 2015.
- Spanish mobile data traffic will grow 3 times faster than Spanish fixed IP traffic from 2015 to 2020.
- Spain's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.

Devices

- In Spain, there will be 340.1 million networked devices in 2020, up from 186.1 million in 2015.
- In Spain, there will be 7.4 networked devices per capita in 2020, up from 4.0 per capita in 2015.
- In Spain, 31% of all networked devices will be mobile-connected in 2020.
- In Spain, M2M modules will account for 62% (210.1 million) of all networked devices in 2020, compared to 44% (82.2 million) in 2015, (20.7% CAGR).
- In Spain, PCs will account for 4% (15.2 million) of all networked devices in 2020, compared to 9% (16.3 million) in 2015, (-1.4% CAGR).
- In Spain, Tablets will account for 3% (10.9 million) of all networked devices in 2020, compared to 5% (8.9 million) in 2015, (4.2% CAGR).
- In Spain, Smartphones will account for 14% (46.3 million) of all networked devices in 2020, compared to 18% (33.2 million) in 2015, (6.9% CAGR).
- In Spain, Connected TVs will account for 12% (41.9 million) of all networked devices in 2020, compared to 11% (21.1 million) in 2015, (14.7% CAGR).
- In Spain, Non-Smartphones will account for 0.9% (2.9 million) of all networked devices in 2020, compared to 7% (13.8 million) in 2015, (-26.6% CAGR).

- In Spain, Other Portables will account for 4% (12.7 million) of all networked devices in 2020, compared to 6% (10.6 million) in 2015, (3.6% CAGR).
- In Spain, 4K TVs will account for 39% (7.6 million) of all flat panel TVs in 2020, compared to 5.7% (408,396) in 2015, (79.5% CAGR).
- Spain's IP traffic from non-PC devices was 31% of total IP traffic in 2015, and will be 59% of total IP traffic in 2020.
- In Spain, PCs accounted for 69% of IP traffic in 2015, and will be 41% of IP traffic in 2020.
- In Spain, TVs accounted for 17% of IP traffic in 2015, and will be 15% of IP traffic in 2020.
- In Spain, Smartphones accounted for 6% of IP traffic in 2015, and will be 23% of IP traffic in 2020.
- In Spain, Tablets accounted for 6% of IP traffic in 2015, and will be 17% of IP traffic in 2020.
- In Spain, M2M modules accounted for 1.9% of IP traffic in 2015, and will be 4.9% of IP traffic in 2020.
- In Spain, PCs accounted for 73% of consumer Internet traffic in 2015, and will be 39% of consumer Internet traffic in 2020.
- In Spain, TVs accounted for 10% of consumer Internet traffic in 2015, and will be 12% of consumer Internet traffic in 2020.
- In Spain, TVs accounted for 8% of total Internet traffic in 2015, and will be 9% of total Internet traffic in 2020.

Speed Evolution

- In Spain, the average fixed broadband speed will grow 2.6-fold from 2015 to 2020, from 21.2 Mbps to 54.4 Mbps.
- In Spain, 93% of fixed broadband connections will be faster than 5 Mbps in 2020, up from 70% today.
- In Spain, 79% of fixed broadband connections will be faster than 10 Mbps in 2020, up from 48% today.
- In Spain, 51.1% of fixed broadband connections will be faster than 25 Mbps in 2020, up from 28.8% today.
- In Spain, 38.4% of fixed broadband connections will be faster than 50 Mbps in 2020, up from 16.8% today.
- In Spain, the average Wi-Fi speeds from mobile devices will grow 2.2-fold from 2015 to 2020, from 11.7 Mbps to 26 Mbps.
- In Spain, the average mobile connection speed will grow 3-fold from 2015 to 2020, reaching 12 Mbps in 2020.

Traffic per User and Household

- In Spain, the average Internet user will generate 45.2 gigabytes of Internet traffic per month in 2020, up 100% from 22.5 gigabytes per month in 2015, a CAGR of 15%.
- In Spain, the average Internet household will generate 105.5 gigabytes of Internet traffic per month in 2020, up 100% from 52.7 gigabytes per month in 2015, a CAGR of 15%.
- In Spain, the average FTTx Internet household will generate 197.4 gigabytes of Internet traffic per month in 2020, 119.3% more than other broadband households.
- In Spain, the average FTTx Internet household generated 115.6 gigabytes of Internet traffic per month in 2015, 137.0% more than other broadband households.
- In Spain, there will be 2 million Internet households (15.0% of all Internet households) generating more than 250 gigabytes per month in 2020.

- In Spain, there will be 501,305 households (4.0% of all Internet households) generating more than 500 gigabytes per month in 2020.
- In Spain, there will be 125,326 households (1.0% of all Internet households) generating more than a terabyte per month in 2020.
- In Spain, the average mobile connection will generate 3,896 megabytes of mobile data traffic per month in 2020, up from 674 megabytes in 2015.