



Rest of Western Europe - 2021 Forecast Highlights

IP Traffic

- In the rest of Western Europe, IP traffic will grow 3-fold from 2016 to 2021, a compound annual growth rate of 21%.
- In the rest of Western Europe, IP traffic will reach 8.0 Exabytes per month in 2021, up from 3.1 Exabytes per month in 2016.
- The rest of Western Europe's IP networks will carry 264 Petabytes per day in 2021, up from 103 Petabytes per day in 2016.
- In the rest of Western Europe, IP traffic will reach an annual run rate of 96.3 Exabytes in 2021, up from an annual run rate of 37.5 Exabytes in 2016.
- In the rest of Western Europe, IP traffic will reach 87 Gigabytes per capita in 2021, up from 35 Gigabytes per capita in 2016.
- In the rest of Western Europe, average IP traffic will reach 24 Tbps in 2021, and busy hour traffic will reach 149 Tbps.
- In 2021, the gigabyte equivalent of all movies ever made will cross The rest of Western Europe's IP networks every 44 minutes.

Internet Traffic

- In the rest of Western Europe, Internet traffic will grow 3.0-fold from 2016 to 2021, a compound annual growth rate of 25%.
- In the rest of Western Europe, busy hour Internet traffic will grow 4.5-fold from 2016 to 2021, a compound annual growth rate of 35%.

- In the rest of Western Europe, Internet traffic will reach 6.8 Exabytes per month in 2021, up from 2.3 Exabytes per month in 2016.
- The rest of Western Europe's Internet traffic will be 225 Petabytes per day in 2021, up from 70 Petabytes per day in 2016.
- The rest of Western Europe's Internet traffic in 2021 will be equivalent to 21 billion DVDs per year, 2 billion DVDs per month, or 2 million DVDs per hour.
- In 2021, the gigabyte equivalent of all movies ever made will cross the Internet every 51 minutes.
- the rest of Western European Internet traffic in 2021 will be equivalent to 41x the volume of the entire the rest of Western European Internet in 2005.
- In the rest of Western Europe, Internet traffic will reach 75 Gigabytes per capita in 2021, up from 25 Gigabytes per capita in 2016.
- In the rest of Western Europe, average Internet traffic will increase 3.0-fold by 2021 and will reach 21 Tbps.
- In the rest of Western Europe, busy hour Internet traffic will increase 4.5-fold by 2021 and will reach 127 Tbps.

Wired Wi-Fi and Mobile Growth

- The rest of Western Europe's Fixed/Wi-Fi was 42% of total IP traffic in 2016, and will be 49% of total IP traffic in 2021.
- The rest of Western Europe's Fixed/Wired was 51% of total IP traffic in 2016, and will be 36% of total IP traffic in 2021.
- The rest of Western Europe's Mobile was 6% of total IP traffic in 2016, and will be 15% of total IP traffic in 2021.
- The rest of Western Europe's Fixed/Wi-Fi was 54.3% of total Internet traffic in 2016, and will be 55.4% of total Internet traffic in 2021.
- The rest of Western Europe's Fixed/Wired was 37% of total Internet traffic in 2016, and will be 27% of total Internet traffic in 2021.
- The rest of Western Europe's Mobile was 8.6% of total Internet traffic in 2016, and will be 17.7% of total Internet traffic in 2021.
- In the rest of Western Europe, mobile data traffic will grow 6-fold from 2016 to 2021, a compound annual growth rate of 44%.
- In the rest of Western Europe, mobile data traffic will reach 1.2 Exabytes per month in 2021, up from 196 Petabytes per month in 2016.
- the rest of Western European mobile data traffic will grow 2 times faster than the rest of Western European fixed IP traffic from 2016 to 2021.
- The rest of Western Europe's Mobile was 6% of total IP traffic in 2016, and will be 15% of total IP traffic in 2021.
- In the rest of Western Europe, mobile data traffic in 2021 will be equivalent to 6x the volume of the entire the rest of Western European Internet in 2005.

IP Video

- In the rest of Western Europe, IP video traffic will grow 3-fold from 2016 to 2021, a compound annual growth rate of 25%.

- In the rest of Western Europe, IP video traffic will reach 6.5 Exabytes per month in 2021, up from 2.1 Exabytes per month in 2016.
- In the rest of Western Europe, IP video will be 81% of all IP traffic in 2021, up from 68% in 2016.
- In the rest of Western Europe, Ultra HD will be 19.8% of IP Video traffic in 2021, up from 1.1% in 2016 (123.4% CAGR).
- In the rest of Western Europe, HD will be 62.9% of IP Video traffic in 2021, up from 50.9% in 2016 (30.5% CAGR).
- In the rest of Western Europe, SD will be 17.3% of IP Video traffic in 2021, compared to 48.0% in 2016 (2.0% CAGR).
- In the rest of Western Europe, consumer IP video traffic will be 84% of consumer IP traffic in 2021, up from 77% in 2016.
- In the rest of Western Europe, business IP video traffic will be 68% of business IP traffic in 2021, up from 42% in 2016.

Internet Video

- In the rest of Western Europe, Internet video traffic will grow 4-fold from 2016 to 2021, a compound annual growth rate of 31%.
- In the rest of Western Europe, Internet video traffic will reach 5.4 Exabytes per month in 2021, up from 1.4 Exabytes per month in 2016.
- In the rest of Western Europe, total Internet video traffic (business and consumer, combined) will be 79% of all Internet traffic in 2021, up from 61% in 2016.
- In the rest of Western Europe, Ultra HD will be 20.1% of Internet video traffic in 2021, up from 1.5% in 2016 (120.0% CAGR).
- In the rest of Western Europe, HD will be 62.0% of Internet video traffic in 2021, up from 40.0% in 2016 (43.1% CAGR).
- In the rest of Western Europe, SD will be 17.9% of Internet video traffic in 2021, compared to 58.5% in 2016 (3.4% CAGR).
- In the rest of Western Europe, consumer Internet video traffic will be 81% of consumer Internet traffic in 2021, up from 68% in 2016.
- In the rest of Western Europe, business Internet video traffic will be 70% of business Internet traffic in 2021, up from 45% in 2016.
- In the rest of Western Europe, Internet-Video-to-TV traffic will be 37% of fixed consumer Internet video traffic in 2021, up from 36% in 2016.
- In the rest of Western Europe, Internet-Video-to-TV traffic will increase 4-fold between 2016 and 2021 (29.5% CAGR).
- In the rest of Western Europe, 79 billion minutes (151,164 years) of video content will cross the Internet each month in 2021. That's 30,233 minutes of video streamed or downloaded every second.
- In the rest of Western Europe, 98% of all Internet video traffic will cross content delivery networks in 2021, up from 89% in 2016.
- In the rest of Western Europe, 71.8% of all Internet video traffic will be long-form video (including live) in 2021, up from 56.7% in 2016.

IP VOD

- In the rest of Western Europe, Ultra HD will be 20.7% of IP VOD traffic in 2021, up from 0.3% in 2016 (150.0% CAGR).
- In the rest of Western Europe, HD will be 75.6% of IP VOD traffic in 2021, up from 79.1% in 2016 (7.0% CAGR).
- In the rest of Western Europe, SD will be 3.7% of IP VOD traffic in 2021, compared to 20.6% in 2016 (-23.5% CAGR).

Gaming

- In the rest of Western Europe, gaming traffic will grow 9-fold from 2016 to 2021, a compound annual growth rate of 54%.
- In the rest of Western Europe, gaming traffic will reach 316 Petabytes per month in 2021, up from 36 Petabytes per month in 2016.
- In the rest of Western Europe, gaming traffic will be 6% of consumer Internet traffic in 2021, up from 2% in 2016.

Devices

- In the rest of Western Europe, there will be 846.8 million networked devices in 2021, up from 507.8 million in 2016.
- In the rest of Western Europe, there will be 9.2 networked devices per capita in 2021, up from 5.6 per capita in 2016.
- In the rest of Western Europe, 29% of all networked devices will be mobile-connected in 2021.
- In the rest of Western Europe, M2M modules will account for 64% (540.7 million) of all networked devices in 2021, compared to 45% (230.7 million) in 2016, (18.6% CAGR).
- In the rest of Western Europe, PCs will account for 5% (43.8 million) of all networked devices in 2021, compared to 11% (53.5 million) in 2016, (-3.9% CAGR).
- In the rest of Western Europe, Tablets will account for 3% (24.3 million) of all networked devices in 2021, compared to 5% (25.7 million) in 2016, (-1.1% CAGR).
- In the rest of Western Europe, Smartphones will account for 12% (100.4 million) of all networked devices in 2021, compared to 15% (76.5 million) in 2016, (5.6% CAGR).
- In the rest of Western Europe, Connected TVs will account for 13% (107.8 million) of all networked devices in 2021, compared to 16% (81.2 million) in 2016, (5.8% CAGR).
- In the rest of Western Europe, Non-Smartphones will account for 0.8% (6.7 million) of all networked devices in 2021, compared to 5% (27.9 million) in 2016, (-24.9% CAGR).
- In the rest of Western Europe, Other Portables will account for 3% (23.0 million) of all networked devices in 2021, compared to 2% (12.2 million) in 2016, (13.6% CAGR).
- In the rest of Western Europe, 4K TVs will account for 53% (22.1 million) of all flat panel TVs in 2021, compared to 12.5% (3.0 million) in 2016, (49.5% CAGR).
- The rest of Western Europe's IP traffic from non-PC devices was 50% of total IP traffic in 2016, and will be 74% of total IP traffic in 2021.
- In the rest of Western Europe, PCs accounted for 50% of IP traffic in 2016, and will be 26% of IP traffic in 2021.
- In the rest of Western Europe, TVs accounted for 32% of IP traffic in 2016, and will be 30% of IP traffic in 2021.

- In the rest of Western Europe, Smartphones accounted for 10% of IP traffic in 2016, and will be 28% of IP traffic in 2021.
- In the rest of Western Europe, Tablets accounted for 5% of IP traffic in 2016, and will be 7% of IP traffic in 2021.
- In the rest of Western Europe, M2M modules accounted for 3.5% of IP traffic in 2016, and will be 9.2% of IP traffic in 2021.
- In the rest of Western Europe, PCs accounted for 52% of consumer Internet traffic in 2016, and will be 22% of consumer Internet traffic in 2021.
- In the rest of Western Europe, TVs accounted for 21% of consumer Internet traffic in 2016, and will be 27% of consumer Internet traffic in 2021.
- In the rest of Western Europe, TVs accounted for 15% of total Internet traffic in 2016, and will be 21% of total Internet traffic in 2021.

Speed Evolution

- In the rest of Western Europe, the average fixed broadband speed will grow 1.8-fold from 2016 to 2021, from 36.8 Mbps to 67.6 Mbps.
- In the rest of Western Europe, 97% of fixed broadband connections will be faster than 5 Mbps in 2021, up from 81% today.
- In the rest of Western Europe, 88% of fixed broadband connections will be faster than 10 Mbps in 2021, up from 64% today.
- In the rest of Western Europe, 52.8% of fixed broadband connections will be faster than 25 Mbps in 2021, up from 33.7% today.
- In the rest of Western Europe, 42.0% of fixed broadband connections will be faster than 50 Mbps in 2021, up from 19.4% today.
- In the rest of Western Europe, the average Wi-Fi speeds from mobile devices will grow 1.6-fold from 2016 to 2021, from 24.5 Mbps to 40 Mbps.
- In the rest of Western Europe, the average mobile connection speed will grow 3-fold from 2016 to 2021, reaching 35 Mbps in 2021.

Traffic per User and Household

- In the rest of Western Europe, the average Internet user will generate 66.9 Gigabytes of Internet traffic per month in 2021, up 185% from 23.5 Gigabytes per month in 2016, a CAGR of 23%.
- In the rest of Western Europe, the average Internet household will generate 140.3 Gigabytes of Internet traffic per month in 2021, up 182% from 49.7 Gigabytes per month in 2016, a CAGR of 23%.
- In the rest of Western Europe, the average FTTx Internet household will generate 242.0 Gigabytes of Internet traffic per month in 2021, 109.1% more than other broadband households.
- In the rest of Western Europe, the average FTTx Internet household generated 97.1 Gigabytes of Internet traffic per month in 2016, 122.4% more than other broadband households.
- In the rest of Western Europe, there will be 7 million Internet households (21.9% of all Internet households) generating more than 250 Gigabytes per month in 2021.
- In the rest of Western Europe, there will be 2 million households (6.0% of all Internet households) generating more than 500 Gigabytes per month in 2021.

- In the rest of Western Europe, there will be 616,417 households (2.0% of all Internet households) generating more than a terabyte per month in 2021.
- In the rest of Western Europe, the average mobile connection will generate 9,010 Megabytes of mobile data traffic per month in 2021, up from 1,641 Megabytes in 2016.

Traffic Topology and Traffic Patterns

- In the rest of Western Europe, 86% of all Internet traffic will cross content delivery networks in 2021, up from 64% in 2016.
- In the rest of Western Europe, peak Internet traffic will grow at a compound annual growth rate of 35% from 2016 to 2021, compared to 25% for average Internet traffic.