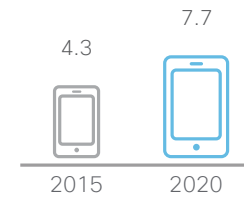
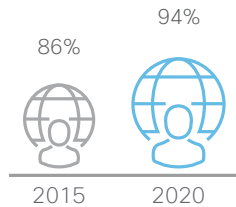


New Zealand

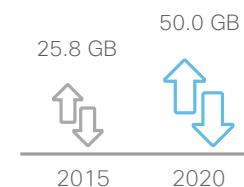
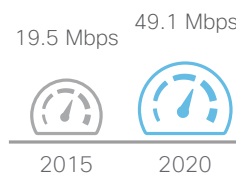
Internet Users: % of Population

Devices and Connections per Capita



Average Speeds

Average Traffic per Capita per Month



New Zealand – 2020 Forecast Highlights

IP Traffic

- In New Zealand, IP traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 15%.
- In New Zealand, IP traffic will reach 236 Petabytes per month in 2020, up from 117 Petabytes per month in 2015.
- New Zealand's IP networks will carry 8 Petabytes per day in 2020, up from 4 Petabytes per day in 2015.
- In New Zealand, IP traffic will reach an annual run rate of 2.8 Exabytes in 2020, up from an annual run rate of 1.4 Exabytes in 2015.
- In New Zealand, IP traffic will reach 50 Gigabytes per capita in 2020, up from 26 Gigabytes per capita in 2015.
- In New Zealand, average IP traffic will reach 720 Gbps in 2020, and busy hour traffic will reach 4 Tbps.
- In 2020, the gigabyte equivalent of all movies ever made will cross New Zealand's IP networks every 25 hours.

Internet Traffic

- In New Zealand, Internet traffic will grow 2.1-fold from 2015 to 2020, a compound annual growth rate of 16%.
- In New Zealand, busy hour Internet traffic will grow 3.2-fold from 2015 to 2020, a compound annual growth rate of 26%.
- In New Zealand, Internet traffic will reach 211 Petabytes per month in 2020, up from 102 Petabytes per month in 2015.
- New Zealand's Internet traffic will be 7 Petabytes per day in 2020, up from Petabytes per day in 2015.
- New Zealand's Internet traffic in 2020 will be equivalent to 632 million DVDs per year, 53 million DVDs per month, or 72,168 DVDs per hour.

- In 2020, the gigabyte equivalent of all movies ever made will cross the Internet every 28 hours.
- New Zealand Internet traffic in 2020 will be equivalent to 156x the volume of the entire New Zealand Internet in 2005.
- In New Zealand, Internet traffic will reach 45 Gigabytes per capita in 2020, up from 23 Gigabytes per capita in 2015.
- In New Zealand, average Internet traffic will increase 2.1-fold by 2020 and will reach 641 Gbps.
- In New Zealand, busy hour Internet traffic will increase 3.2-fold by 2020 and will reach 3 Tbps.

Wired Wi-Fi and Mobile Growth

- New Zealand's Fixed/Wi-Fi was 59% of total IP traffic in 2015, and will be 60% of total IP traffic in 2020.
- New Zealand's Fixed/Wired was 37% of total IP traffic in 2015, and will be 29% of total IP traffic in 2020.
- New Zealand's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- New Zealand's Fixed/Wi-Fi was 63.9% of total Internet traffic in 2015, and will be 64.4% of total Internet traffic in 2020.
- New Zealand's Fixed/Wired was 32% of total Internet traffic in 2015, and will be 23% of total Internet traffic in 2020.
- New Zealand's Mobile was 4.5% of total Internet traffic in 2015, and will be 12.9% of total Internet traffic in 2020.

IP Video

- In New Zealand, IP video traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 18%.
- In New Zealand, IP video traffic will reach 199 Petabytes per month in 2020, up from 86 Petabytes per month in 2015.
- In New Zealand, IP video will be 84% of all IP traffic in 2020, up from 74% in 2015.
- In New Zealand, Ultra HD will be 11.7% of IP Video traffic in 2020, up from 2.1% in 2015 (66.4% CAGR).
- In New Zealand, HD will be 64.2% of IP Video traffic in 2020, up from 44.7% in 2015 (27.2% CAGR).
- In New Zealand, SD will be 24.2% of IP Video traffic in 2020, compared to 53.1% in 2015 (1.1% CAGR).
- In New Zealand, consumer IP video traffic will be 88% of consumer IP traffic in 2020, up from 79% in 2015.
- In New Zealand, business IP video traffic will be 71% of business IP traffic in 2020, up from 50% in 2015.

Internet Video

- In New Zealand, Internet video traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 19%.
- In New Zealand, Internet video traffic will reach 177 Petabytes per month in 2020, up from 74 Petabytes per month in 2015.
- In New Zealand, total Internet video traffic (business and consumer, combined) will be 84% of all Internet traffic in 2020, up from 73% in 2015.

- In New Zealand, Ultra HD will be 11.8% of Internet video traffic in 2020, up from 2.3% in 2015 (64.5% CAGR).
- In New Zealand, HD will be 66.7% of Internet video traffic in 2020, up from 45.6% in 2015 (28.3% CAGR).
- In New Zealand, SD will be 21.4% of Internet video traffic in 2020, compared to 52.1% in 2015 (-0.5% CAGR).
- In New Zealand, consumer Internet video traffic will be 87% of consumer Internet traffic in 2020, up from 77% in 2015.
- In New Zealand, business Internet video traffic will be 72% of business Internet traffic in 2020, up from 52% in 2015.
- In New Zealand, Internet-Video-to-TV traffic will be 18% of fixed consumer Internet video traffic in 2020, up from 9% in 2015.
- In New Zealand, Internet-Video-to-TV traffic will increase 4-fold between 2015 and 2020 (31.9% CAGR).
- In New Zealand, 3 billion minutes (5,885 years) of video content will cross the Internet each month in 2020. That's 1,177 minutes of video streamed or downloaded every second.
- In New Zealand, 66% of all Internet video traffic will cross content delivery networks in 2020, up from 57% in 2015.
- In New Zealand, 59% of all Internet traffic will cross content delivery networks in 2020, up from 45% in 2015.

IP VOD

- In New Zealand, Ultra HD will be 13.7% of IP VOD traffic in 2020, up from 1.0% in 2015 (92.9% CAGR).
- In New Zealand, HD will be 59.1% of IP VOD traffic in 2020, up from 50.2% in 2015 (17.7% CAGR).
- In New Zealand, SD will be 27.2% of IP VOD traffic in 2020, compared to 48.9% in 2015 (1.3% CAGR).

Gaming

- In New Zealand, Internet gaming traffic will grow 6-fold from 2015 to 2020, a compound annual growth rate of 44%.
- In New Zealand, Internet gaming traffic will reach 177 Petabytes per month in 2020, up from 74 Petabytes per month in 2015.
- In New Zealand, Internet gaming traffic will be 6% of consumer Internet traffic in 2020, up from 2% in 2015.

Mobile

- In New Zealand, mobile data traffic will grow 6-fold from 2015 to 2020, a compound annual growth rate of 43%.
- In New Zealand, mobile data traffic will reach 27 Petabytes per month in 2020, up from 5 Petabytes per month in 2015.
- New Zealand mobile data traffic will grow 3 times faster than New Zealand fixed IP traffic from 2015 to 2020.
- New Zealand's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- In New Zealand, mobile data traffic in 2020 will be equivalent to 18x the volume of the entire New Zealand Internet in 2005.

Devices

- In New Zealand, there will be 36.5 million networked devices in 2020, up from 19.6 million in 2015.
- In New Zealand, there will be 7.7 networked devices per capita in 2020, up from 4.3 per capita in 2015.
- In New Zealand, 39% of all networked devices will be mobile-connected in 2020.
- In New Zealand, M2M modules will account for 70% (25.7 million) of all networked devices in 2020, compared to 52% (10.1 million) in 2015, (20.4% CAGR).
- In New Zealand, PCs will account for 9% (3.1 million) of all networked devices in 2020, compared to 16% (3.1 million) in 2015, (-0.1% CAGR).
- In New Zealand, Tablets will account for 2% (678738) of all networked devices in 2020, compared to 3% (612538) in 2015, (2.1% CAGR).
- In New Zealand, Smartphones will account for 11% (3.9 million) of all networked devices in 2020, compared to 16% (3.1 million) in 2015, (5% CAGR).
- In New Zealand, Connected TVs will account for 7% (2.5 million) of all networked devices in 2020, compared to 8% (1.6 million) in 2015, (9.5% CAGR).
- In New Zealand, Non-Smartphones will account for 0.9% (329416) of all networked devices in 2020, compared to 4% (823757) in 2015, (-16.7% CAGR).
- In New Zealand, Other Portables will account for 1% (293516) of all networked devices in 2020, compared to 1% (263477) in 2015, (2.2% CAGR).
- In New Zealand, 4K TVs will account for 55% (613622) of all flat panel TVs in 2020, compared to 3.8% (15,765) in 2015, (108% CAGR).
- New Zealand's IP traffic from non-PC devices was 23% of total IP traffic in 2015, and will be 44% of total IP traffic in 2020.
- In New Zealand, PCs accounted for 77% of IP traffic in 2015, and will be 56% of IP traffic in 2020.
- In New Zealand, TVs accounted for 12% of IP traffic in 2015, and will be 15% of IP traffic in 2020.
- In New Zealand, Smartphones accounted for 5% of IP traffic in 2015, and will be 15% of IP traffic in 2020.
- In New Zealand, Tablets accounted for 4% of IP traffic in 2015, and will be 7% of IP traffic in 2020.
- In New Zealand, M2M modules accounted for 2.0% of IP traffic in 2015, and will be 6.6% of IP traffic in 2020.
- In New Zealand, PCs accounted for 82% of consumer Internet traffic in 2015, and will be 58% of consumer Internet traffic in 2020.
- In New Zealand, TVs accounted for 6% of consumer Internet traffic in 2015, and will be 11% of consumer Internet traffic in 2020.
- In New Zealand, TVs accounted for 5% of total Internet traffic in 2015, and will be 9% of total Internet traffic in 2020.

Speed Evolution

- In New Zealand, the average fixed broadband speed will grow 2.5-fold from 2015 to 2020, from 19.5 Mbps to 49.1 Mbps.
- In New Zealand, 96% of fixed broadband connections will be faster than 5 Mbps in 2020, up from 77% today.
- In New Zealand, 81% of fixed broadband connections will be faster than 10 Mbps in 2020, up from 57% today.

- In New Zealand, 42.4% of fixed broadband connections will be faster than 25 Mbps in 2020, up from 28.2% today.
- In New Zealand, 32.7% of fixed broadband connections will be faster than 50 Mbps in 2020, up from 12.5% today.
- In New Zealand, the average Wi-Fi speeds from mobile devices will grow 2.0-fold from 2015 to 2020, from 12.2 Mbps to 25 Mbps.
- In New Zealand, the average mobile connection speed will grow 3-fold from 2015 to 2020, reaching 18 Mbps in 2020.

Traffic per User and Household

- In New Zealand, the average Internet user will generate 35.0 gigabytes of Internet traffic per month in 2020, up 69% from 20.7 gigabytes per month in 2015, a CAGR of 11%.
- In New Zealand, the average Internet household will generate 84.5 gigabytes of Internet traffic per month in 2020, up 70% from 49.8 gigabytes per month in 2015, a CAGR of 11%.
- In New Zealand, the average FTTx Internet household will generate 131.6 gigabytes of Internet traffic per month in 2020, 114.9% more than other broadband households.
- In New Zealand, the average FTTx Internet household generated 117.2 gigabytes of Internet traffic per month in 2015, 158.3% more than other broadband households.
- In New Zealand, there will be 156,521 Internet households (9.0% of all Internet households) generating more than 250 gigabytes per month in 2020.
- In New Zealand, there will be 34,782 households (2.0% of all Internet households) generating more than 500 gigabytes per month in 2020.
- In New Zealand, there will be 17,391 households (1.0% of all Internet households) generating more than a terabyte per month in 2020.
- In New Zealand, the average mobile connection will generate 3,809 megabytes of mobile data traffic per month in 2020, up from 935 megabytes in 2015.