



Indonesia - 2020 Forecast Highlights

IP Traffic

- In Indonesia, IP traffic will grow 5-fold from 2015 to 2020, a compound annual growth rate of 37%.
- In Indonesia, IP traffic will reach 2.1 Exabytes per month in 2020, up from 448 Petabytes per month in 2015.
- Indonesia's IP networks will carry 70 Petabytes per day in 2020, up from 15 Petabytes per day in 2015.
- In Indonesia, IP traffic will reach an annual run rate of 25.7 Exabytes in 2020, up from an annual run rate of 5.4 Exabytes in 2015.
- In Indonesia, IP traffic will reach 8 Gigabytes per capita in 2020, up from 2 Gigabytes per capita in 2015.
- In 2020, the gigabyte equivalent of all movies ever made will cross Indonesia's IP networks every 3 hours.

Internet Traffic

- In Indonesia, Internet traffic will grow 4.8-fold from 2015 to 2020, a compound annual growth rate of 37%.
- In Indonesia, Internet traffic will reach 2.1 Exabytes per month in 2020, up from 426 Petabytes per month in 2015.
- Indonesia's Internet traffic will be 67 Petabytes per day in 2020, up from 10 Petabytes per day in 2015.
- Indonesia's Internet traffic in 2020 will be equivalent to 6 billion DVDs per year, 513 million DVDs per month, or 702,735 DVDs per hour.
- In 2020, the gigabyte equivalent of all movies ever made will cross the Internet every 3 hours.
- In Indonesia, Internet traffic will reach 8 Gigabytes per capita in 2020, up from 2 Gigabytes per capita in 2015.
- In Indonesia, average Internet traffic will increase 4.8-fold by 2020 and will reach 6 Tbps.

Wired Wi-Fi and Mobile Growth

- Indonesia's Fixed/Wi-Fi was 65% of total IP traffic in 2015, and will be 51% of total IP traffic in 2020.
- Indonesia's Fixed/Wired was 20% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- Indonesia's Mobile was 16% of total IP traffic in 2015, and will be 38% of total IP traffic in 2020.
- Indonesia's Fixed/Wi-Fi was 65.9% of total Internet traffic in 2015, and will be 52.5% of total Internet traffic in 2020.
- Indonesia's Fixed/Wired was 17% of total Internet traffic in 2015, and will be 8% of total Internet traffic in 2020.
- Indonesia's Mobile was 16.7% of total Internet traffic in 2015, and will be 39.8% of total Internet traffic in 2020.

IP Video

- In Indonesia, IP video traffic will grow 7-fold from 2015 to 2020, a compound annual growth rate of 49%.
- In Indonesia, IP video traffic will reach 1.5 Exabytes per month in 2020, up from 209 Petabytes per month in 2015.
- In Indonesia, IP video will be 72% of all IP traffic in 2020, up from 47% in 2015.
- In Indonesia, Ultra HD will be 5.4% of IP Video traffic in 2020, up from 0.5% in 2015 (139.9% CAGR).
- In Indonesia, HD will be 49.5% of IP Video traffic in 2020, up from 19.3% in 2015 (80.3% CAGR).
- In Indonesia, SD will be 45.1% of IP Video traffic in 2020, compared to 80.2% in 2015 (33.0% CAGR).
- In Indonesia, consumer IP video traffic will be 74% of consumer IP traffic in 2020, up from 50% in 2015.
- In Indonesia, business IP video traffic will be 55% of business IP traffic in 2020, up from 29% in 2015.

Internet Video

- In Indonesia, Internet video traffic will grow 7-fold from 2015 to 2020, a compound annual growth rate of 49%.
- In Indonesia, Internet video traffic will reach 1.5 Exabytes per month in 2020, up from 198 Petabytes per month in 2015.
- In Indonesia, total Internet video traffic (business and consumer, combined) will be 72% of all Internet traffic in 2020, up from 47% in 2015.
- In Indonesia, Ultra HD will be 5.6% of Internet video traffic in 2020, up from 0.5% in 2015 (139.2% CAGR).
- In Indonesia, HD will be 50.9% of Internet video traffic in 2020, up from 19.9% in 2015 (80.1% CAGR).
- In Indonesia, SD will be 43.5% of Internet video traffic in 2020, compared to 79.6% in 2015 (32.2% CAGR).
- In Indonesia, consumer Internet video traffic will be 73% of consumer Internet traffic in 2020, up from 49% in 2015.
- In Indonesia, business Internet video traffic will be 57% of business Internet traffic in 2020, up from 31% in 2015.
- In Indonesia, Internet-Video-to-TV traffic will be 11% of fixed consumer Internet video traffic in 2020, up from 9% in 2015.
- In Indonesia, Internet-Video-to-TV traffic will increase 6-fold between 2015 and 2020 (43.6% CAGR).

- In Indonesia, 7 billion minutes (13,822 years) of video content will cross the Internet each month in 2020. That's 2,764 minutes of video streamed or downloaded every second.
- In Indonesia, 41% of all Internet video traffic will cross content delivery networks in 2020, up from 23% in 2015.
- In Indonesia, 34% of all Internet traffic will cross content delivery networks in 2020, up from 12% in 2015.

IP VOD

- In Indonesia, Ultra HD will be 1.7% of IP VOD traffic in 2020, up from 0.0% in 2015 (418.0% CAGR).
- In Indonesia, HD will be 25.4% of IP VOD traffic in 2020, up from 10.1% in 2015 (90.3% CAGR).
- In Indonesia, SD will be 72.9% of IP VOD traffic in 2020, compared to 89.8% in 2015 (51.9% CAGR).

Gaming

- In Indonesia, Internet gaming traffic will grow 8-fold from 2015 to 2020, a compound annual growth rate of 52%.
- In Indonesia, Internet gaming traffic will reach 1.5 Exabytes per month in 2020, up from 198 Petabytes per month in 2015.
- In Indonesia, Internet gaming traffic will be 3% of consumer Internet traffic in 2020, up from 2% in 2015.

Mobile

- In Indonesia, mobile data traffic will grow 12-fold from 2015 to 2020, a compound annual growth rate of 63%.
- In Indonesia, mobile data traffic will reach 816 Petabytes per month in 2020, up from 71 Petabytes per month in 2015.
- Indonesian mobile data traffic will grow 2 times faster than Indonesian fixed IP traffic from 2015 to 2020.
- Indonesia's Mobile was 16% of total IP traffic in 2015, and will be 38% of total IP traffic in 2020.

Devices

- In Indonesia, there will be 550.8 million networked devices in 2020, up from 401.4 million in 2015.
- In Indonesia, there will be 2.0 networked devices per capita in 2020, up from 1.6 per capita in 2015.
- In Indonesia, 77% of all networked devices will be mobile-connected in 2020.
- In Indonesia, M2M modules will account for 17% (95.1 million) of all networked devices in 2020, compared to 8% (33.3 million) in 2015, (23.4% CAGR).
- In Indonesia, PCs will account for 4% (23.1 million) of all networked devices in 2020, compared to 5% (20.9 million) in 2015, (2% CAGR).
- In Indonesia, Tablets will account for 4% (22.7 million) of all networked devices in 2020, compared to 2% (9.2 million) in 2015, (20% CAGR).
- In Indonesia, Smartphones will account for 44% (241.1 million) of all networked devices in 2020, compared to 28% (112.6 million) in 2015, (16.5% CAGR).
- In Indonesia, Connected TVs will account for 5% (27.3 million) of all networked devices in 2020, compared to 2% (7.8 million) in 2015, (28.5% CAGR).

- In Indonesia, Non-Smartphones will account for 24.8% (136.6 million) of all networked devices in 2020, compared to 54% (215.2 million) in 2015, (-8.7% CAGR).
- In Indonesia, Other Portables will account for 1% (4.8 million) of all networked devices in 2020, compared to 1% (2.6 million) in 2015, (13.4% CAGR).
- In Indonesia, 4K TVs will account for 40% (7.6 million) of all flat panel TVs in 2020, compared to 4.4% (183,878) in 2015, (110.3% CAGR).
- Indonesia's IP traffic from non-PC devices was 32% of total IP traffic in 2015, and will be 73% of total IP traffic in 2020.
- In Indonesia, PCs accounted for 68% of IP traffic in 2015, and will be 27% of IP traffic in 2020.
- In Indonesia, TVs accounted for 4% of IP traffic in 2015, and will be 6% of IP traffic in 2020.
- In Indonesia, Smartphones accounted for 22% of IP traffic in 2015, and will be 54% of IP traffic in 2020.
- In Indonesia, Tablets accounted for 4% of IP traffic in 2015, and will be 12% of IP traffic in 2020.
- In Indonesia, M2M modules accounted for 0.8% of IP traffic in 2015, and will be 1.7% of IP traffic in 2020.
- In Indonesia, PCs accounted for 66% of consumer Internet traffic in 2015, and will be 25% of consumer Internet traffic in 2020.
- In Indonesia, TVs accounted for 3% of consumer Internet traffic in 2015, and will be 3% of consumer Internet traffic in 2020.
- In Indonesia, TVs accounted for 2% of total Internet traffic in 2015, and will be 2% of total Internet traffic in 2020.

Speed Evolution

- In Indonesia, the average fixed broadband speed will grow 3.6-fold from 2015 to 2020, from 3.9 Mbps to 14.1 Mbps.
- In Indonesia, 75% of fixed broadband connections will be faster than 5 Mbps in 2020, up from 28% today.
- In Indonesia, 39% of fixed broadband connections will be faster than 10 Mbps in 2020, up from 13% today.
- In Indonesia, 7.8% of fixed broadband connections will be faster than 25 Mbps in 2020, up from 3.9% today.
- In Indonesia, 4.3% of fixed broadband connections will be faster than 50 Mbps in 2020, up from 1.5% today.
- In Indonesia, the average Wi-Fi speeds from mobile devices will grow 2.9-fold from 2015 to 2020, from 3.4 Mbps to 10 Mbps.
- In Indonesia, the average mobile connection speed will grow 7-fold from 2015 to 2020, reaching 3 Mbps in 2020.

Traffic per User and Household

- In Indonesia, the average Internet user will generate 34.9 gigabytes of Internet traffic per month in 2020, up 243% from 10.2 gigabytes per month in 2015, a CAGR of 28%.
- In Indonesia, the average Internet household will generate 108.1 gigabytes of Internet traffic per month in 2020, up 331% from 25.1 gigabytes per month in 2015, a CAGR of 34%.
- In Indonesia, the average FTTx Internet household will generate 245.2 gigabytes of Internet traffic per month in 2020, 130.7% more than other broadband households.
- In Indonesia, the average FTTx Internet household generated 116.1 gigabytes of Internet traffic per month in 2015, 227.0% more than other broadband households.

- In Indonesia, there will be 2 million Internet households (22.0% of all Internet households) generating more than 250 gigabytes per month in 2020.
- In Indonesia, there will be 425,840 households (5.0% of all Internet households) generating more than 500 gigabytes per month in 2020.
- In Indonesia, there will be 85,168 households (1.0% of all Internet households) generating more than a terabyte per month in 2020.
- In Indonesia, the average mobile connection will generate 2,021 megabytes of mobile data traffic per month in 2020, up from 211 megabytes in 2015.