



Rest of Asia Pacific - 2021 Forecast Highlights

IP Traffic

- In the rest of Asia Pacific, IP traffic will grow 4-fold from 2016 to 2021, a compound annual growth rate of 29%.
- In the rest of Asia Pacific, IP traffic will reach 17.3 Exabytes per month in 2021, up from 4.8 Exabytes per month in 2016.
- The rest of Asia Pacific's IP networks will carry 568 Petabytes per day in 2021, up from 157 Petabytes per day in 2016.
- In the rest of Asia Pacific, IP traffic will reach an annual run rate of 207.3 Exabytes in 2021, up from an annual run rate of 57.1 Exabytes in 2016.
- In the rest of Asia Pacific, IP traffic will reach 19 Gigabytes per capita in 2021, up from 6 Gigabytes per capita in 2016.
- In the rest of Asia Pacific, average IP traffic will reach 53 Tbps in 2021, and busy hour traffic will reach 260 Tbps.
- In 2021, the gigabyte equivalent of all movies ever made will cross The rest of Asia Pacific's IP networks every 20 minutes.

Internet Traffic

- In the rest of Asia Pacific, Internet traffic will grow 3.7-fold from 2016 to 2021, a compound annual growth rate of 30%.
- In the rest of Asia Pacific, busy hour Internet traffic will grow 5.8-fold from 2016 to 2021, a compound annual growth rate of 42%.

- In the rest of Asia Pacific, Internet traffic will reach 16.6 Exabytes per month in 2021, up from 4.4 Exabytes per month in 2016.
- The rest of Asia Pacific's Internet traffic will be 547 Petabytes per day in 2021, up from 150 Petabytes per day in 2016.
- The rest of Asia Pacific's Internet traffic in 2021 will be equivalent to 50 billion DVDs per year, 4 billion DVDs per month, or 6 million DVDs per hour.
- In 2021, the gigabyte equivalent of all movies ever made will cross the Internet every 21 minutes.
- the rest of Asia Pacific Internet traffic in 2021 will be equivalent to 76x the volume of the entire the rest of Asia Pacific Internet in 2005.
- In the rest of Asia Pacific, Internet traffic will reach 18 Gigabytes per capita in 2021, up from 5 Gigabytes per capita in 2016.
- In the rest of Asia Pacific, average Internet traffic will increase 3.7-fold by 2021 and will reach 51 Tbps.
- In the rest of Asia Pacific, busy hour Internet traffic will increase 5.8-fold by 2021 and will reach 250 Tbps.

Wired Wi-Fi and Mobile Growth

- The rest of Asia Pacific's Fixed/Wi-Fi was 49% of total IP traffic in 2016, and will be 46% of total IP traffic in 2021.
- The rest of Asia Pacific's Fixed/Wired was 34% of total IP traffic in 2016, and will be 17% of total IP traffic in 2021.
- The rest of Asia Pacific's Mobile was 17% of total IP traffic in 2016, and will be 38% of total IP traffic in 2021.
- The rest of Asia Pacific's Fixed/Wi-Fi was 51.0% of total Internet traffic in 2016, and will be 46.9% of total Internet traffic in 2021.
- The rest of Asia Pacific's Fixed/Wired was 30% of total Internet traffic in 2016, and will be 14% of total Internet traffic in 2021.
- The rest of Asia Pacific's Mobile was 18.6% of total Internet traffic in 2016, and will be 39.1% of total Internet traffic in 2021.
- In the rest of Asia Pacific, mobile data traffic will grow 8-fold from 2016 to 2021, a compound annual growth rate of 51%.
- In the rest of Asia Pacific, mobile data traffic will reach 6.5 Exabytes per month in 2021, up from 828 Petabytes per month in 2016.
- the rest of Asia Pacific mobile data traffic will grow 2 times faster than the rest of Asia Pacific fixed IP traffic from 2016 to 2021.
- The rest of Asia Pacific's Mobile was 17% of total IP traffic in 2016, and will be 38% of total IP traffic in 2021.
- In the rest of Asia Pacific, mobile data traffic in 2021 will be equivalent to 29x the volume of the entire the rest of Asia Pacific Internet in 2005.

IP Video

- In the rest of Asia Pacific, IP video traffic will grow 5-fold from 2016 to 2021, a compound annual growth rate of 39%.
- In the rest of Asia Pacific, IP video traffic will reach 13.0 Exabytes per month in 2021, up from 2.5 Exabytes per month in 2016.
- In the rest of Asia Pacific, IP video will be 75% of all IP traffic in 2021, up from 53% in 2016.

- In the rest of Asia Pacific, Ultra HD will be 14.1% of IP Video traffic in 2021, up from 1.9% in 2016 (107.8% CAGR).
- In the rest of Asia Pacific, HD will be 59.2% of IP Video traffic in 2021, up from 29.7% in 2016 (59.3% CAGR).
- In the rest of Asia Pacific, SD will be 26.7% of IP Video traffic in 2021, compared to 68.4% in 2016 (15.0% CAGR).
- In the rest of Asia Pacific, consumer IP video traffic will be 78% of consumer IP traffic in 2021, up from 58% in 2016.
- In the rest of Asia Pacific, business IP video traffic will be 56% of business IP traffic in 2021, up from 34% in 2016.

Internet Video

- In the rest of Asia Pacific, Internet video traffic will grow 5-fold from 2016 to 2021, a compound annual growth rate of 40%.
- In the rest of Asia Pacific, Internet video traffic will reach 12.5 Exabytes per month in 2021, up from 2.3 Exabytes per month in 2016.
- In the rest of Asia Pacific, total Internet video traffic (business and consumer, combined) will be 75% of all Internet traffic in 2021, up from 52% in 2016.
- In the rest of Asia Pacific, Ultra HD will be 14.3% of Internet video traffic in 2021, up from 2.0% in 2016 (106.9% CAGR).
- In the rest of Asia Pacific, HD will be 58.6% of Internet video traffic in 2021, up from 28.0% in 2016 (62.5% CAGR).
- In the rest of Asia Pacific, SD will be 27.0% of Internet video traffic in 2021, compared to 70.0% in 2016 (15.8% CAGR).
- In the rest of Asia Pacific, consumer Internet video traffic will be 78% of consumer Internet traffic in 2021, up from 56% in 2016.
- In the rest of Asia Pacific, business Internet video traffic will be 58% of business Internet traffic in 2021, up from 36% in 2016.
- In the rest of Asia Pacific, Internet-Video-to-TV traffic will be 17% of fixed consumer Internet video traffic in 2021, up from 17% in 2016.
- In the rest of Asia Pacific, Internet-Video-to-TV traffic will increase 4-fold between 2016 and 2021 (33.7% CAGR).
- In the rest of Asia Pacific, 155 billion minutes (295,557 years) of video content will cross the Internet each month in 2021. That's 59,111 minutes of video streamed or downloaded every second.
- In the rest of Asia Pacific, 61% of all Internet video traffic will cross content delivery networks in 2021, up from 48% in 2016.
- In the rest of Asia Pacific, 62.4% of all Internet video traffic will be long-form video (including live) in 2021, up from 68.8% in 2016.

IP VOD

- In the rest of Asia Pacific, Ultra HD will be 10.7% of IP VOD traffic in 2021, up from 0.1% in 2016 (226.8% CAGR).
- In the rest of Asia Pacific, HD will be 86.6% of IP VOD traffic in 2021, up from 59.8% in 2016 (28.5% CAGR).
- In the rest of Asia Pacific, SD will be 2.7% of IP VOD traffic in 2021, compared to 40.1% in 2016 (-30.2% CAGR).

Gaming

- In the rest of Asia Pacific, gaming traffic will grow 4-fold from 2016 to 2021, a compound annual growth rate of 35%.
- In the rest of Asia Pacific, gaming traffic will reach 289 Petabytes per month in 2021, up from 64 Petabytes per month in 2016.
- In the rest of Asia Pacific, gaming traffic will be 2% of consumer Internet traffic in 2021, up from 2% in 2016.

Devices

- In the rest of Asia Pacific, there will be 1.8 billion networked devices in 2021, up from 1.3 billion in 2016.
- In the rest of Asia Pacific, there will be 1.9 networked devices per capita in 2021, up from 1.5 per capita in 2016.
- In the rest of Asia Pacific, 68% of all networked devices will be mobile-connected in 2021.
- In the rest of Asia Pacific, M2M modules will account for 32% (557.1 million) of all networked devices in 2021, compared to 17% (213.0 million) in 2016, (21.2% CAGR).
- In the rest of Asia Pacific, PCs will account for 5% (79.8 million) of all networked devices in 2021, compared to 7% (84.8 million) in 2016, (-1.2% CAGR).
- In the rest of Asia Pacific, Tablets will account for 3% (61.1 million) of all networked devices in 2021, compared to 3% (38.4 million) in 2016, (9.7% CAGR).
- In the rest of Asia Pacific, Smartphones will account for 38% (674.4 million) of all networked devices in 2021, compared to 29% (359.0 million) in 2016, (13.4% CAGR).
- In the rest of Asia Pacific, Connected TVs will account for 5% (85.8 million) of all networked devices in 2021, compared to 4% (50.7 million) in 2016, (11.1% CAGR).
- In the rest of Asia Pacific, Non-Smartphones will account for 16.2% (285.0 million) of all networked devices in 2021, compared to 40% (505.6 million) in 2016, (-10.8% CAGR).
- In the rest of Asia Pacific, Other Portables will account for 1% (11.1 million) of all networked devices in 2021, compared to % (4.9 million) in 2016, (17.5% CAGR).
- In the rest of Asia Pacific, 4K TVs will account for 83% (33.4 million) of all flat panel TVs in 2021, compared to 12.6% (2.3 million) in 2016, (70.3% CAGR).
- The rest of Asia Pacific's IP traffic from non-PC devices was 42% of total IP traffic in 2016, and will be 77% of total IP traffic in 2021.
- In the rest of Asia Pacific, PCs accounted for 58% of IP traffic in 2016, and will be 23% of IP traffic in 2021.
- In the rest of Asia Pacific, TVs accounted for 8% of IP traffic in 2016, and will be 8% of IP traffic in 2021.
- In the rest of Asia Pacific, Smartphones accounted for 25% of IP traffic in 2016, and will be 58% of IP traffic in 2021.
- In the rest of Asia Pacific, Tablets accounted for 8% of IP traffic in 2016, and will be 9% of IP traffic in 2021.
- In the rest of Asia Pacific, M2M modules accounted for 1.0% of IP traffic in 2016, and will be 2.2% of IP traffic in 2021.
- In the rest of Asia Pacific, PCs accounted for 56% of consumer Internet traffic in 2016, and will be 20% of consumer Internet traffic in 2021.
- In the rest of Asia Pacific, TVs accounted for 6% of consumer Internet traffic in 2016, and will be 6% of consumer Internet traffic in 2021.
- In the rest of Asia Pacific, TVs accounted for 5% of total Internet traffic in 2016, and will be 5% of total Internet traffic in 2021.

Speed Evolution

- In the rest of Asia Pacific, the average fixed broadband speed will grow 1.6-fold from 2016 to 2021, from 28.2 Mbps to 45.7 Mbps.
- In the rest of Asia Pacific, 90% of fixed broadband connections will be faster than 5 Mbps in 2021, up from 70% today.
- In the rest of Asia Pacific, 75% of fixed broadband connections will be faster than 10 Mbps in 2021, up from 51% today.
- In the rest of Asia Pacific, 39.1% of fixed broadband connections will be faster than 25 Mbps in 2021, up from 26.9% today.
- In the rest of Asia Pacific, 29.2% of fixed broadband connections will be faster than 50 Mbps in 2021, up from 18.3% today.
- In the rest of Asia Pacific, the average Wi-Fi speeds from mobile devices will grow 1.7-fold from 2016 to 2021, from 16.7 Mbps to 28 Mbps.
- In the rest of Asia Pacific, the average mobile connection speed will grow 3-fold from 2016 to 2021, reaching 9 Mbps in 2021.

Traffic per User and Household

- In the rest of Asia Pacific, the average Internet user will generate 38.3 Gigabytes of Internet traffic per month in 2021, up 144% from 15.7 Gigabytes per month in 2016, a CAGR of 20%.
- In the rest of Asia Pacific, the average Internet household will generate 146.7 Gigabytes of Internet traffic per month in 2021, up 152% from 58.1 Gigabytes per month in 2016, a CAGR of 20%.
- In the rest of Asia Pacific, the average FTTx Internet household will generate 206.9 Gigabytes of Internet traffic per month in 2021, 92.0% more than other broadband households.
- In the rest of Asia Pacific, the average FTTx Internet household generated 87.9 Gigabytes of Internet traffic per month in 2016, 100.5% more than other broadband households.
- In the rest of Asia Pacific, there will be 12 million Internet households (20.8% of all Internet households) generating more than 250 Gigabytes per month in 2021.
- In the rest of Asia Pacific, there will be 4 million households (7.5% of all Internet households) generating more than 500 Gigabytes per month in 2021.
- In the rest of Asia Pacific, there will be 1 million households (1.9% of all Internet households) generating more than a terabyte per month in 2021.
- In the rest of Asia Pacific, the average mobile connection will generate 5,801 Megabytes of mobile data traffic per month in 2021, up from 905 Megabytes in 2016.

Traffic Topology and Traffic Patterns

- In the rest of Asia Pacific, 51% of all Internet traffic will cross content delivery networks in 2021, up from 28% in 2016.
- In the rest of Asia Pacific, peak Internet traffic will grow at a compound annual growth rate of 42% from 2016 to 2021, compared to 30% for average Internet traffic.