



## Korea - 2020 Forecast Highlights

### IP Traffic

- In Korea, IP traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 12%.
- In Korea, IP traffic will reach 5.8 Exabytes per month in 2020, up from 3.3 Exabytes per month in 2015.
- Korea's IP networks will carry 192 Petabytes per day in 2020, up from 107 Petabytes per day in 2015.
- In Korea, IP traffic will reach an annual run rate of 70.2 Exabytes in 2020, up from an annual run rate of 39.1 Exabytes in 2015.
- In Korea, IP traffic will reach 114 Gigabytes per capita in 2020, up from 65 Gigabytes per capita in 2015.
- In Korea, average IP traffic will reach 18 Tbps in 2020, and busy hour traffic will reach 86 Tbps.
- In 2020, the gigabyte equivalent of all movies ever made will cross Korea's IP networks every 60 minutes.

### Internet Traffic

- In Korea, Internet traffic will grow 1.8-fold from 2015 to 2020, a compound annual growth rate of 12%.
- In Korea, busy hour Internet traffic will grow 2.9-fold from 2015 to 2020, a compound annual growth rate of 23%.
- In Korea, Internet traffic will reach 5.1 Exabytes per month in 2020, up from 2.9 Exabytes per month in 2015.
- Korea's Internet traffic will be 166 Petabytes per day in 2020, up from 100 Petabytes per day in 2015.
- Korea's Internet traffic in 2020 will be equivalent to 15 billion DVDs per year, 1 billion DVDs per month, or 2 million DVDs per hour.
- In 2020, the gigabyte equivalent of all movies ever made will cross the Internet every 1 hours.

- Korean Internet traffic in 2020 will be equivalent to 17x the volume of the entire Korean Internet in 2005.
- In Korea, Internet traffic will reach 99 Gigabytes per capita in 2020, up from 57 Gigabytes per capita in 2015.
- In Korea, average Internet traffic will increase 1.8-fold by 2020 and will reach 15 Tbps.
- In Korea, busy hour Internet traffic will increase 2.9-fold by 2020 and will reach 74 Tbps.

### Wired Wi-Fi and Mobile Growth

- Korea's Fixed/Wi-Fi was 45% of total IP traffic in 2015, and will be 49% of total IP traffic in 2020.
- Korea's Fixed/Wired was 51% of total IP traffic in 2015, and will be 40% of total IP traffic in 2020.
- Korea's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- Korea's Fixed/Wi-Fi was 50.7% of total Internet traffic in 2015, and will be 56.3% of total Internet traffic in 2020.
- Korea's Fixed/Wired was 45% of total Internet traffic in 2015, and will be 31% of total Internet traffic in 2020.
- Korea's Mobile was 4.5% of total Internet traffic in 2015, and will be 12.8% of total Internet traffic in 2020.

### IP Video

- In Korea, IP video traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 17%.
- In Korea, IP video traffic will reach 4.4 Exabytes per month in 2020, up from 2.0 Exabytes per month in 2015.
- In Korea, IP video will be 76% of all IP traffic in 2020, up from 61% in 2015.
- In Korea, Ultra HD will be 19.9% of IP Video traffic in 2020, up from 3.8% in 2015 (63.2% CAGR).
- In Korea, HD will be 67.7% of IP Video traffic in 2020, up from 56.3% in 2015 (21.8% CAGR).
- In Korea, SD will be 12.4% of IP Video traffic in 2020, compared to 39.8% in 2015 (-6.9% CAGR).
- In Korea, consumer IP video traffic will be 78% of consumer IP traffic in 2020, up from 63% in 2015.
- In Korea, business IP video traffic will be 62% of business IP traffic in 2020, up from 42% in 2015.

### Internet Video

- In Korea, Internet video traffic will grow 2-fold from 2015 to 2020, a compound annual growth rate of 18%.
- In Korea, Internet video traffic will reach 3.7 Exabytes per month in 2020, up from 1.6 Exabytes per month in 2015.
- In Korea, total Internet video traffic (business and consumer, combined) will be 73% of all Internet traffic in 2020, up from 57% in 2015.
- In Korea, Ultra HD will be 17.8% of Internet video traffic in 2020, up from 4.2% in 2015 (57.1% CAGR).
- In Korea, HD will be 71.4% of Internet video traffic in 2020, up from 56.4% in 2015 (23.2% CAGR).
- In Korea, SD will be 10.8% of Internet video traffic in 2020, compared to 39.4% in 2015 (-9.3% CAGR).
- In Korea, consumer Internet video traffic will be 75% of consumer Internet traffic in 2020, up from 58% in 2015.
- In Korea, business Internet video traffic will be 64% of business Internet traffic in 2020, up from 44% in 2015.
- In Korea, Internet-Video-to-TV traffic will be 17% of fixed consumer Internet video traffic in 2020, up from 8% in 2015.

- In Korea, Internet-Video-to-TV traffic will increase 4-fold between 2015 and 2020 (31.9% CAGR).
- In Korea, 131 billion minutes (249,726 years) of video content will cross the Internet each month in 2020. That's 49,945 minutes of video streamed or downloaded every second.
- In Korea, 98% of all Internet video traffic will cross content delivery networks in 2020, up from 78% in 2015.
- In Korea, 76% of all Internet traffic will cross content delivery networks in 2020, up from 48% in 2015.

## IP VOD

- In Korea, Ultra HD will be 31.0% of IP VOD traffic in 2020, up from 2.4% in 2015 (96.0% CAGR).
- In Korea, HD will be 50.1% of IP VOD traffic in 2020, up from 57.8% in 2015 (14.1% CAGR).
- In Korea, SD will be 18.9% of IP VOD traffic in 2020, compared to 39.8% in 2015 (1.1% CAGR).

## Gaming

- In Korea, Internet gaming traffic will grow 5-fold from 2015 to 2020, a compound annual growth rate of 36%.
- In Korea, Internet gaming traffic will reach 3.7 Exabytes per month in 2020, up from 1.6 Exabytes per month in 2015.
- In Korea, Internet gaming traffic will be 5% of consumer Internet traffic in 2020, up from 2% in 2015.

## Mobile

- In Korea, mobile data traffic will grow 5-fold from 2015 to 2020, a compound annual growth rate of 38%.
- In Korea, mobile data traffic will reach 650 Petabytes per month in 2020, up from 131 Petabytes per month in 2015.
- Korean mobile data traffic will grow 4 times faster than Korean fixed IP traffic from 2015 to 2020.
- Korea's Mobile was 4% of total IP traffic in 2015, and will be 11% of total IP traffic in 2020.
- In Korea, mobile data traffic in 2020 will be equivalent to 2x the volume of the entire Korean Internet in 2005.

## Devices

- In Korea, there will be 623.4 million networked devices in 2020, up from 335.5 million in 2015.
- In Korea, there will be 12.2 networked devices per capita in 2020, up from 6.7 per capita in 2015.
- In Korea, 30% of all networked devices will be mobile-connected in 2020.
- In Korea, M2M modules will account for 72% (450.4 million) of all networked devices in 2020, compared to 58% (195.0 million) in 2015, (18.2% CAGR).
- In Korea, PCs will account for 3% (17.2 million) of all networked devices in 2020, compared to 6% (21.0 million) in 2015, (-3.9% CAGR).
- In Korea, Tablets will account for 1% (8.2 million) of all networked devices in 2020, compared to 2% (7.0 million) in 2015, (3.2% CAGR).
- In Korea, Smartphones will account for 9% (57.8 million) of all networked devices in 2020, compared to 14% (45.5 million) in 2015, (4.9% CAGR).

- In Korea, Connected TVs will account for 11% (69.5 million) of all networked devices in 2020, compared to 13% (42.5 million) in 2015, (10.3% CAGR).
- In Korea, Non-Smartphones will account for 0.1% (526585) of all networked devices in 2020, compared to 3% (9.0 million) in 2015, (-43.3% CAGR).
- In Korea, Other Portables will account for 3% (19.9 million) of all networked devices in 2020, compared to 5% (15.5 million) in 2015, (5.1% CAGR).
- In Korea, 4K TVs will account for 39% (10.3 million) of all flat panel TVs in 2020, compared to 6.2% (732,391) in 2015, (69.7% CAGR).
- Korea's IP traffic from non-PC devices was 26% of total IP traffic in 2015, and will be 56% of total IP traffic in 2020.
- In Korea, PCs accounted for 74% of IP traffic in 2015, and will be 44% of IP traffic in 2020.
- In Korea, TVs accounted for 14% of IP traffic in 2015, and will be 20% of IP traffic in 2020.
- In Korea, Smartphones accounted for 8% of IP traffic in 2015, and will be 25% of IP traffic in 2020.
- In Korea, Tablets accounted for 2% of IP traffic in 2015, and will be 5% of IP traffic in 2020.
- In Korea, M2M modules accounted for 1.8% of IP traffic in 2015, and will be 5.3% of IP traffic in 2020.
- In Korea, PCs accounted for 84% of consumer Internet traffic in 2015, and will be 53% of consumer Internet traffic in 2020.
- In Korea, TVs accounted for 4% of consumer Internet traffic in 2015, and will be 10% of consumer Internet traffic in 2020.
- In Korea, TVs accounted for 4% of total Internet traffic in 2015, and will be 9% of total Internet traffic in 2020.

### Speed Evolution

- In Korea, the average fixed broadband speed will grow 1.7-fold from 2015 to 2020, from 58.7 Mbps to 97.0 Mbps.
- In Korea, 99% of fixed broadband connections will be faster than 5 Mbps in 2020, up from 88% today.
- In Korea, 98% of fixed broadband connections will be faster than 10 Mbps in 2020, up from 81% today.
- In Korea, 85.0% of fixed broadband connections will be faster than 25 Mbps in 2020, up from 68.1% today.
- In Korea, 69.8% of fixed broadband connections will be faster than 50 Mbps in 2020, up from 50.6% today.
- In Korea, the average Wi-Fi speeds from mobile devices will grow 1.6-fold from 2015 to 2020, from 27.2 Mbps to 44 Mbps.
- In Korea, the average mobile connection speed will grow 2-fold from 2015 to 2020, reaching 19 Mbps in 2020.

### Traffic per User and Household

- In Korea, the average Internet user will generate 78.6 gigabytes of Internet traffic per month in 2020, up 46% from 53.9 gigabytes per month in 2015, a CAGR of 8%.
- In Korea, the average Internet household will generate 194.4 gigabytes of Internet traffic per month in 2020, up 46% from 132.8 gigabytes per month in 2015, a CAGR of 8%.
- In Korea, the average FTTx Internet household will generate 221.6 gigabytes of Internet traffic per month in 2020, 88.5% more than other broadband households.

- In Korea, the average FTTx Internet household generated 159.3 gigabytes of Internet traffic per month in 2015, 93.2% more than other broadband households.
- In Korea, there will be 4 million Internet households (22.0% of all Internet households) generating more than 250 gigabytes per month in 2020.
- In Korea, there will be 2 million households (12.0% of all Internet households) generating more than 500 gigabytes per month in 2020.
- In Korea, there will be 577,708 households (3.0% of all Internet households) generating more than a terabyte per month in 2020.
- In Korea, the average mobile connection will generate 8,716 megabytes of mobile data traffic per month in 2020, up from 2,128 megabytes in 2015.