

akamai's [state of the internet]

Q1 2017 executive summary

Akamai's globally distributed Intelligent Platform™ allows us to gather enormous amounts of data on many metrics, including internet connection speeds, network connectivity/availability issues, and IPv6 adoption progress, as well as traffic patterns across leading web properties and digital media providers. Each quarter, Akamai publishes the *State of the Internet Report* based on this data.

This quarter's report includes data gathered from across the Akamai Intelligent Platform during the first quarter of 2017, covering internet connection speeds and broadband adoption metrics across both fixed and mobile networks, as well as trends seen in this data over time. In addition, the report includes insight into the state of IPv4 exhaustion and IPv6 adoption, Internet events and disruptions that occurred during the quarter, and observations from Akamai partner Ericsson regarding data and voice-traffic growth on mobile networks.

Data on attack traffic seen across the Akamai platform, and insights into high-profile security vulnerabilities and attacks are now published in a separate *State of the Internet / Security Report*. The quarterly security report provides timely information about the origins, tactics, types, and targets of cyberattacks, including quarter-over-quarter and year-over-year attack traffic trends as well as case studies highlighting emerging cybersecurity issues. *The State of the Internet / Security Report* can be found at <http://www.akamai.com/stateoftheinternet-security>.

INTERNET CONNECTIVITY / In the first quarter of 2017, Akamai observed a 0.9% quarterly increase in the number of unique IPv4 addresses connecting to the Akamai Intelligent Platform, rising to just over 814 million — about 7.6 million more than in the fourth quarter of 2016. In all, approximately 5 million IPv4 addresses were depleted from available pools at the Regional Internet Registries in the first quarter, leaving approximately 39 million addresses remaining. Belgium remained the clear global leader in IPv6 adoption with 38% of its connections to Akamai for dual-stacked content happening over IPv6, down 19% from the previous quarter.

| | Country/Region | Q1 2017 IPv6 % | QoQ Change |
|----|---------------------|----------------|------------|
| 1 | Belgium | 38% | -19% |
| 2 | Greece | 25% | -16% |
| 3 | United States | 22% | -15% |
| 4 | Switzerland | 21% | -22% |
| 5 | Trinidad and Tobago | 21% | -4.8% |
| 6 | Germany | 20% | -20% |
| 7 | India | 17% | 21% |
| 8 | Estonia | 16% | -10% |
| 9 | Brazil | 13% | 29% |
| 10 | United Kingdom | 13% | -4.8% |

IPv6 Traffic Percentage, Top Countries/Regions

CONNECTION SPEEDS & BROADBAND ADOPTION / The global average connection speed increased 2.3% quarter-over-quarter to 7.2 Mbps, a 15% increase compared with one year prior. At a country/region level, South Korea continued to have the highest average connection speed in the world at 28.6 Mbps — a 9.3% increase compared to the fourth quarter of 2016, while Singapore maintained its position as the country with the highest average peak connection speed at 184.5 Mbps.

| | Country/Region | Q1 2017 Avg. Mbps | QoQ Change | YoY Change |
|----|----------------|-------------------|------------|------------|
| – | Global | 7.2 | 2.3% | 15% |
| 1 | South Korea | 28.6 | 9.3% | -1.7% |
| 2 | Norway | 23.5 | -0.4% | 10% |
| 3 | Sweden | 22.5 | -1.3% | 9.2% |
| 4 | Hong Kong | 21.9 | -0.2% | 10% |
| 5 | Switzerland | 21.7 | 2.1% | 16% |
| 6 | Finland | 20.5 | -0.7% | 15% |
| 7 | Singapore | 20.3 | 0.8% | 23% |
| 8 | Japan | 20.2 | 3.1% | 11% |
| 9 | Denmark | 20.1 | -2.9% | 17% |
| 10 | United States | 18.7 | 8.8% | 22% |

Average Connection Speed (IPv4) by Country/Region IPv6 Traffic Percentage, Top Countries/Regions

Globally, 4 Mbps broadband adoption was 82% in the first quarter, up 3.3% from the previous quarter, with Guernsey and South Korea seeing the highest levels of adoption worldwide at 98% each. The worldwide 10 Mbps, 15 Mbps, and 25 Mbps broadband adoption rates all saw robust quarter-over-quarter growth, increasing 9.0%, 11%, and 16% to adoption levels of 45%, 28%, and 12%, respectively. As it has for many quarters, South Korea continued to lead the world in all three broadband tiers, with adoption rates of 85%, 69%, and 40% respectively, after quarterly increases of 3.1%, 7.8%, and 16%.

MOBILE / In the first quarter of 2017, average mobile connection speeds (aggregated at a country/region level) ranged from a high of 26.0 Mbps in the United Kingdom to a low of 2.8 Mbps in Venezuela. Based on traffic data collected by Ericsson, the volume of mobile data traffic grew by nearly 12% over the previous quarter.

| Country/Region | Q1 2017 Avg. Mbps | Country/Region | Q1 2017 Avg. Mbps |
|-----------------|-------------------|---------------------|-------------------|
| AMERICAS | | ASIA PACIFIC | |
| Argentina | 5.1 | Australia | 15.7 |
| Bolivia | 4.0 | China | 9.3 |
| Brazil | 5.2 | Hong Kong | 6.8 |
| Canada | 10.3 | India | 4.9 |
| Chile | 7.2 | Indonesia | 12.8 |
| Colombia | 6.7 | Japan | 15.6 |
| Costa Rica * | 3.7 | Malaysia | 4.4 |
| Ecuador * | 4.5 | New Zealand | 13.0 |
| Mexico * | 7.5 | Philippines * | 8.7 |
| Panama | 4.2 | Singapore | 8.6 |
| Paraguay | 7.5 | South Korea | 11.8 |
| Peru | 8.3 | Sri Lanka | 6.9 |
| United States | 10.7 | Taiwan | 13.0 |
| Uruguay | 4.6 | Thailand | 8.6 |
| Venezuela | 2.8 | Vietnam | 5.3 |

| Country/Region | Q1 2017 Avg. Mbps |
|----------------|-------------------|
| EUROPE | |
| Austria | 13.5 |
| Belgium | 16.2 |
| Bulgaria * | 9.5 |
| Croatia | 9.4 |
| Cyprus * | 24.2 |
| Czech Republic | 7.4 |
| Denmark | 16.6 |
| Estonia | 11.1 |
| Finland | 21.6 |
| France | 17.4 |
| Germany | 24.1 |
| Greece | 11.4 |
| Hungary | 12.0 |
| Ireland | 13.2 |
| Italy | 12.4 |
| Latvia * | 14.8 |
| Lithuania | 9.8 |
| Luxembourg * | 10.4 |
| Malta * | 8.5 |
| Netherlands | 15.0 |
| Norway | 17.3 |
| Poland | 9.5 |

Average Connection Speeds (IPv4) for Mobile Connections by Country/Region

| Country/Region | Q1 2017 Avg. Mbps |
|-----------------------------|-------------------|
| Portugal | 6.9 |
| Romania | 15.9 |
| Russia | 9.9 |
| Slovakia | 14.0 |
| Slovenia | 11.3 |
| Spain | 13.8 |
| Sweden | 13.2 |
| Switzerland * | 22.4 |
| United Kingdom | 26.0 |
| MIDDLE EAST / AFRICA | |
| Egypt | 12.2 |
| Iran | 7.5 |
| Israel | 9.2 |
| Kenya | 13.7 |
| Kuwait | 10.2 |
| Morocco | 5.3 |
| Namibia | 3.8 |
| Nigeria * | 3.9 |
| Qatar * | 13.6 |
| Saudi Arabia | 6.0 |
| South Africa | 6.9 |
| Turkey | 10.3 |
| United Arab Emirates | 10.0 |

* Fewer than 25,000 unique IPv4 addresses classified as mobile observed in Q1 2017

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As the world's largest and most trusted cloud delivery platform, Akamai makes it easier for its customers to provide the best and most secure digital experiences on any device, anytime, anywhere. Akamai's massively distributed platform is unparalleled in scale with over 200,000 servers across 130 countries, giving customers superior performance and threat protection. Akamai's portfolio of web and mobile performance, cloud security, enterprise access, and video delivery solutions are supported by exceptional customer service and 24/7 monitoring. To learn why the top financial institutions, e-commerce leaders, media & entertainment providers, and government organizations trust Akamai please visit www.akamai.com, blogs.akamai.com, or [@Akamai](https://twitter.com/Akamai) on Twitter. You can find our global contact information at www.akamai.com/locations. Published 05/15.