Akamai's globally-distributed Intelligent Platform allows us to gather massive amounts of information on many metrics, including connection speeds, attack traffic, network connectivity/availability issues, and IPv6 growth/transition progress, as well as traffic patterns across leading Web properties and digital media providers. Each quarter, Akamai publishes the State of the Internet Report.

This quarter's report includes data gathered from across the Akamai Intelligent Platform in the fourth quarter of 2013, covering attack traffic, Internet connection speeds and broadband adoption, and mobile connectivity, as well as trends seen in this data over time. In addition, this edition of the report includes insight into attacks generated by vulnerability scanning tools, the states of IPv4 exhaustion and IPv6 adoption, Internet disruptions that occurred during the quarter, and observations from Akamai partner Ericsson regarding data and voice traffic growth on mobile networks.

Security
During the fourth quarter of 2013, Akamai observed attack traffic originating from source IP addresses in 188 unique countries/regions. Note that our methodology captures the source IP address of an observed attack and cannot determine attribution of an attacker. China remained in the top slot, growing to 43% of observed attack traffic. The United States also saw significant growth in observed attack traffic, while Indonesia’s contribution continued to decline after spiking earlier in the year. Overall attack traffic concentration across the top 10 countries/regions was up slightly from the third quarter, growing to 88% of observed attacks. Port 445 remained the most targeted port, growing once again and reaching 30% of observed attacks. The volume of attacks targeting Port 80 remained steady at 14%. During the fourth quarter, Akamai customers reported being targeted by 346 DDoS attacks, 23% more than in the prior quarter, and nearly 75% more than in the fourth quarter of 2012. Enterprise and Commerce customers together accounted for just under 70% of the reported attacks during the quarter, while just under half of the total attacks were reported by customers in the Americas. In addition, the fourth quarter saw the rise of a set of attacks in which the Skipfish and Vega Web application vulnerability scanners were used to target a variety of organizations, looking for Remote File Inclusion (RFI) vulnerabilities.

Internet and Broadband Adoption
In the fourth quarter, Akamai observed a 2.9% increase in the number of unique IPv4 addresses connecting to the Akamai Intelligent Platform, growing to just under 783 million, or about 22 million more than were seen in the third quarter of 2013. Looking at connection speeds, the global average connection speed grew 5.5% to 3.8 Mbps and the global average peak connection speed added an impressive 30%, ending 2013 at 23.2 Mbps. At a country/region level, South Korea continued to have the highest average connection speed at 21.9 Mbps, and Hong Kong continued to have the highest average peak connection speed at 68.0 Mbps. Globally, high broadband (>10 Mbps) adoption grew just 1.6%, remaining at 19%, and South Korea remained the country with the highest level of high broadband adoption, growing slightly to 71%. Global broadband (>4 Mbps) adoption grew 4.3% quarter-over-quarter to 55%, and South Korea inched ever closer to universal broadband, with a 94% adoption rate in the fourth quarter.

Mobile Connectivity
In the fourth quarter of 2013, average connection speeds on surveyed mobile network providers ranged from a high of 8.9 Mbps down to a low of 0.6 Mbps. Average peak connection speeds above 100 Mbps were observed at several providers, while 3.1 Mbps was the slowest seen. Based on traffic data collected by Ericsson, the volume of mobile data traffic increased by 70% from the fourth quarter of 2012 to the fourth quarter of 2013, and grew approximately 15% between the third and fourth quarters of 2013. Analysis of Akamai IO data collected across the fourth quarter from a sample of requests to the Akamai Intelligent Platform indicates that for traffic from mobile devices on cellular networks, Android Webkit accounted for approximately 35% of requests, with Apple Mobile Safari trailing at just over 29%. However, for traffic from mobile devices on all networks, Apple Mobile Safari was responsible for just over 47% of requests, while Android Webkit drove only 32% of requests.
What **long-term trends** have been observed for connection speeds?

Over the course of 2013, strong growth was seen in the average and average peak connection speeds across the top 10 countries/regions, as well as in over 130 qualifying countries/regions around the world. These positive year-over-year trends point to continued improvements to the availability, affordability, and quality of Internet connectivity around the world. How are your Web sites, applications, and media taking advantage of these faster connections?


### How can a submarine cable cut disrupt Internet connectivity?

On November 6, the Suriname Guyana Submarine Cable System (SGSCS) suffered a “marine disruption,” which caused significant disruptions to Internet service in both Suriname and Guyana. Users in Suriname had international Internet connectivity cut off for approximately two hours, while users in Guyana saw a near complete outage of international Internet connectivity for seven hours. Do you know how your home country is connected to the Internet? Have you removed single points of failure from your corporate Internet connection and your Internet-dependent workflows?

To read the full *4th Quarter, 2013 State of the Internet Report* on broadband adoption, connection speeds, Internet penetration, mobile usage, attack traffic, and more, or to use the associated data visualization tools, go to [www.akamai.com/stateoftheinternet](http://www.akamai.com/stateoftheinternet)
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