



euro-IX

IXPs Traffic Statistics

2014 summary

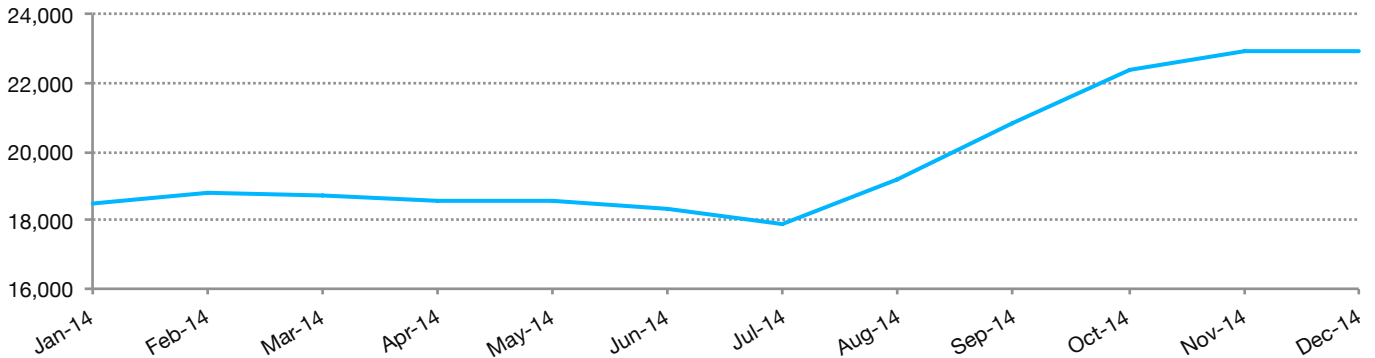


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Global Traffic Statistics in 2014

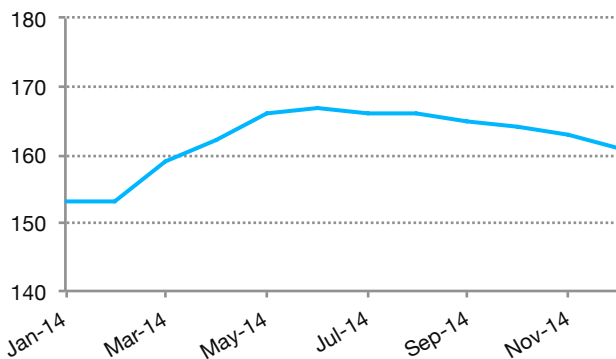
> Total aggregated traffic growth worldwide (in Gbps)



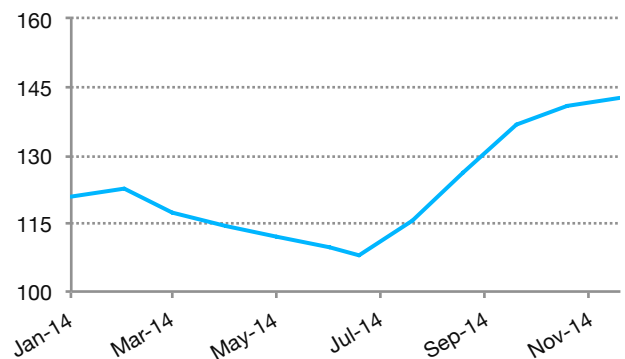
The total aggregated peak traffic has increased with 24% over the past 12 months, going from 18,489 Gbps in January to 22,917 Gbps in December. The traffic peak has been quite stable in the first half of the year, then showed a small drop in July, followed by a fast increase until October.

Note: these numbers are based on data collected each month over public peering LAN (some automatically, some manually). The number of IXPs monitored varied from one month to the other depending on the data available. This number increased from 153 in January to 166 in July but then decreased to 161 in December (see chart below). On average, Euro-IX monitored 162 IXPs throughout the year.

> Number of IXPs monitored worldwide

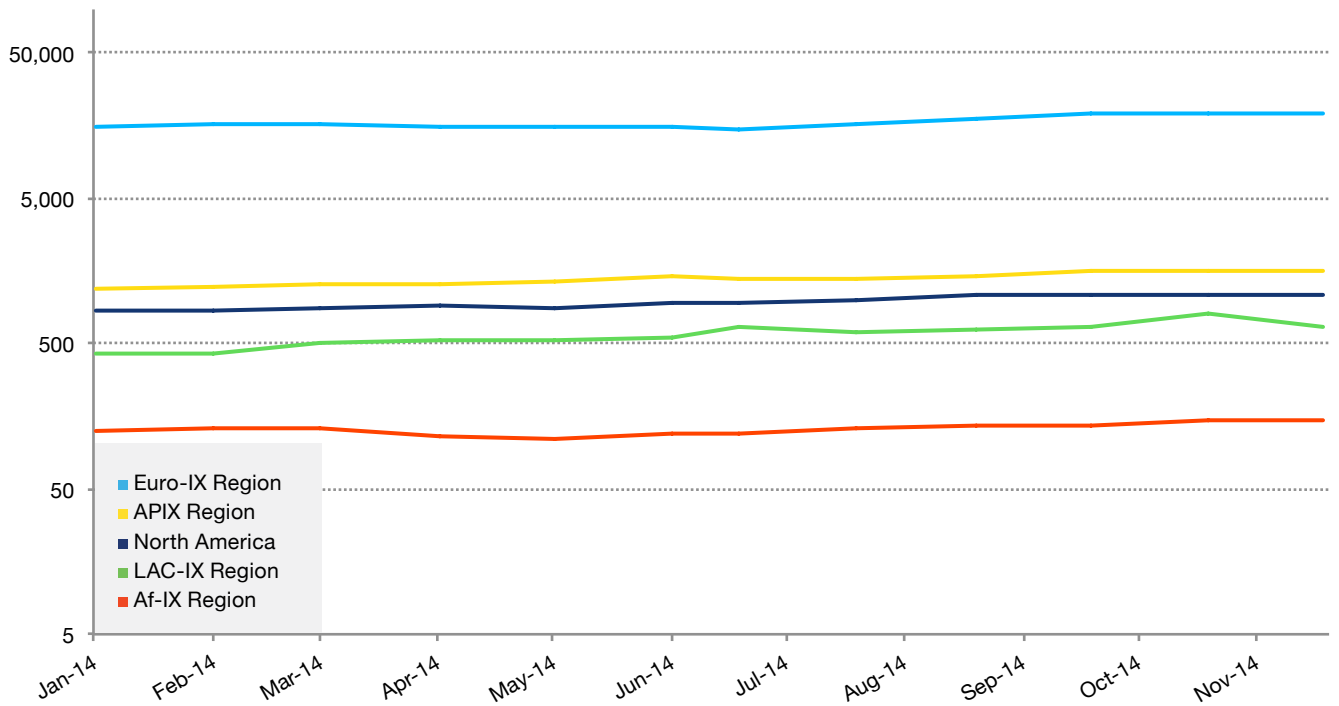


> Average peak traffic per IXP (in Gbps)



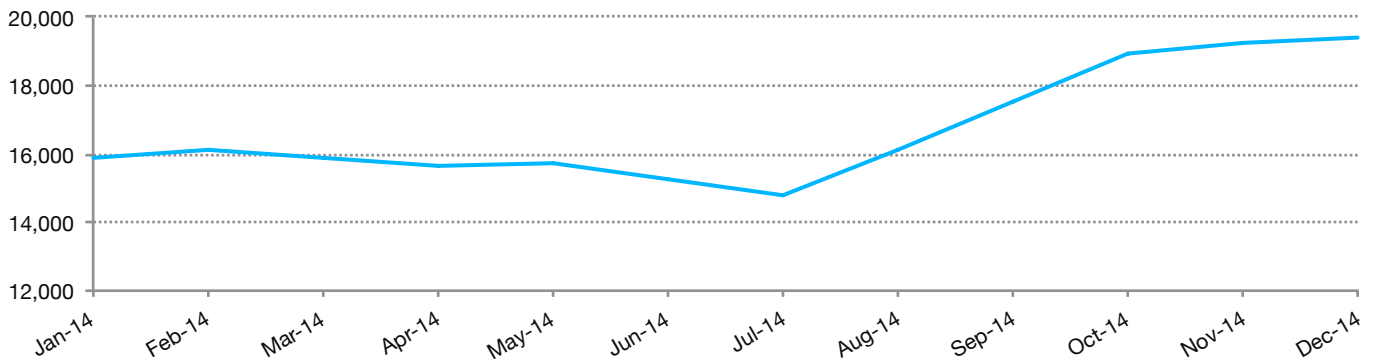
The average peak traffic per IXP decreased from February to July and started growing again after that. It went from 121 Gbps in January to 142 Gbps in December (increase of 17% over the full year). The traffic peaks ranged from 7 Kbps to 3,157 Gbps in January and from 2 Mbps to 3,582 Gbps in December. The averages shown above are therefore not representative for most of the Exchanges and the IXP community remains very diverse.

> Overview of the aggregated traffic statistics per region (in Gbps, logarithmic scale)



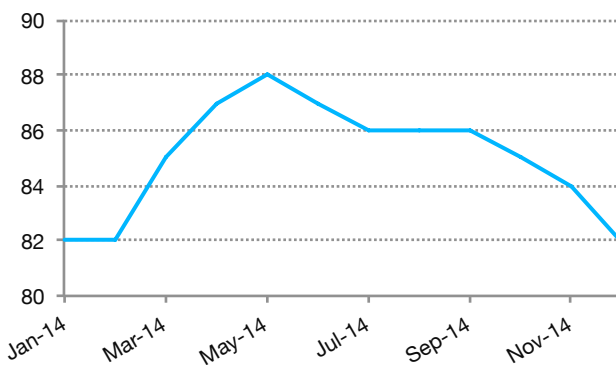
Euro-IX Region

> Total aggregated traffic growth in the Euro-IX region (in Gbps)

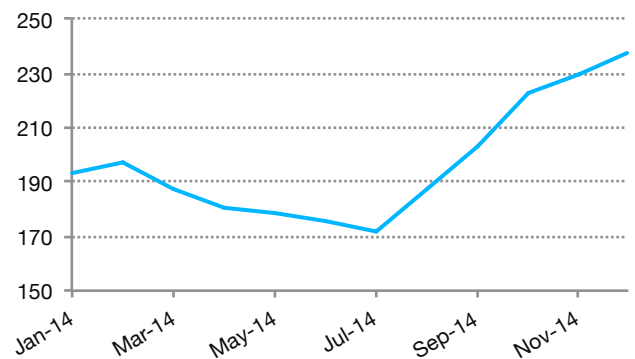


The total aggregated peak traffic in the Euro-IX region has increased with 22% over the past 12 months, going from 15,887 Gbps in January to 19,442 Gbps in December. The traffic decreased a little in the first half of the year (with a clear drop in June and July) before growing again at a fast pace. These numbers are based on data collected from 85 IXPs on average throughout the year, over public peering LAN.

> Number of IXPs monitored in the Euro-IX region



> Average peak traffic per IXP (in Gbps)

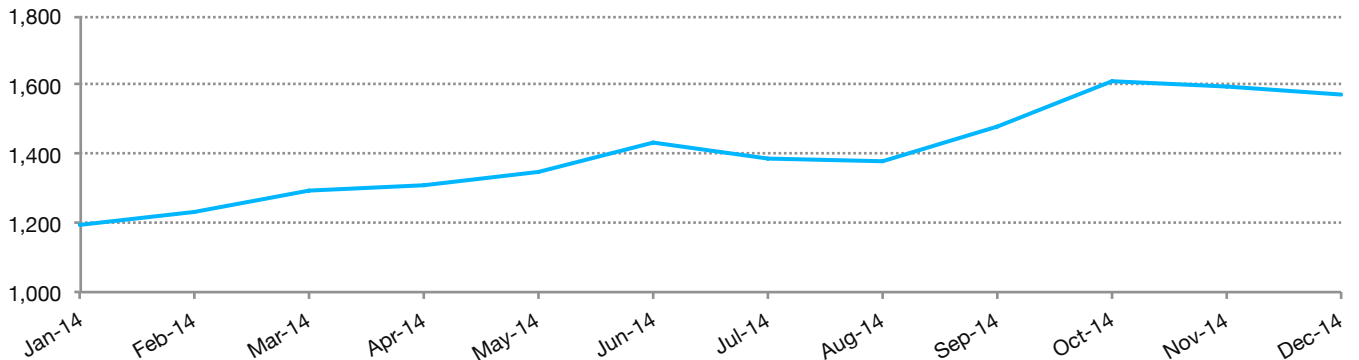


The number of IXPs monitored increased from 82 to 87 in the first half of the year, before decreasing back to 82 in the second half. The average peak traffic per IXP increased with 22%, going from 194 Gbps to 237 Gbps. The traffic peaks in this region ranged from 22 Mbps to 3,157 Gbps in January and from 24 Mbps to 3,582 Gbps in December.

The 4 largest IXPs in term of traffic in this region but also worldwide are DE-CIX in Frankfurt, AMS-IX in Amsterdam, LINX in London and MSK-IX in Moscow, which are the only ones where the traffic peaks above 1 Tbps each month.

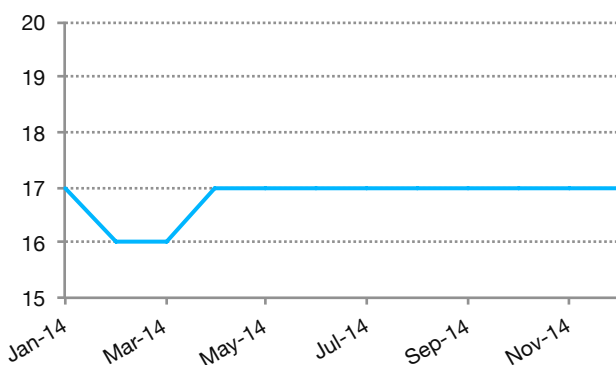
APIX Region

> Total aggregated traffic growth in the APIX region (in Gbps)

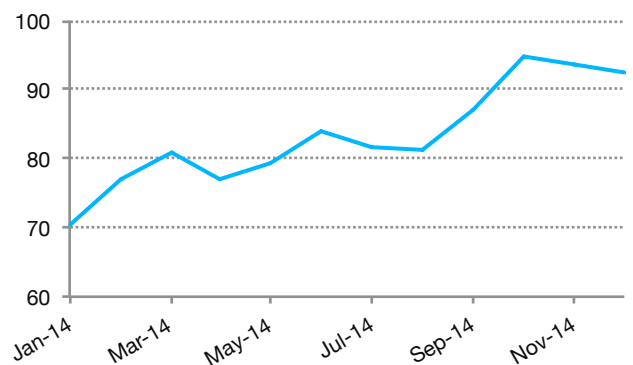


The total aggregated peak traffic in the APIX region has increased with 32% over the past 12 months, going from 1,195 Gbps in January to 1,575 Gbps in December. These numbers are based on data collected from 17 IXPs, over public peering LAN. This region showed a constant and steady growth rate this year, with only a slight drop in the months of July and August (lighter decrease than the one observed in the Euro-IX region at the same period) and another small drop in December.

> Number of IXPs monitored in the APIX region



> Average peak traffic per IXP (in Gbps)

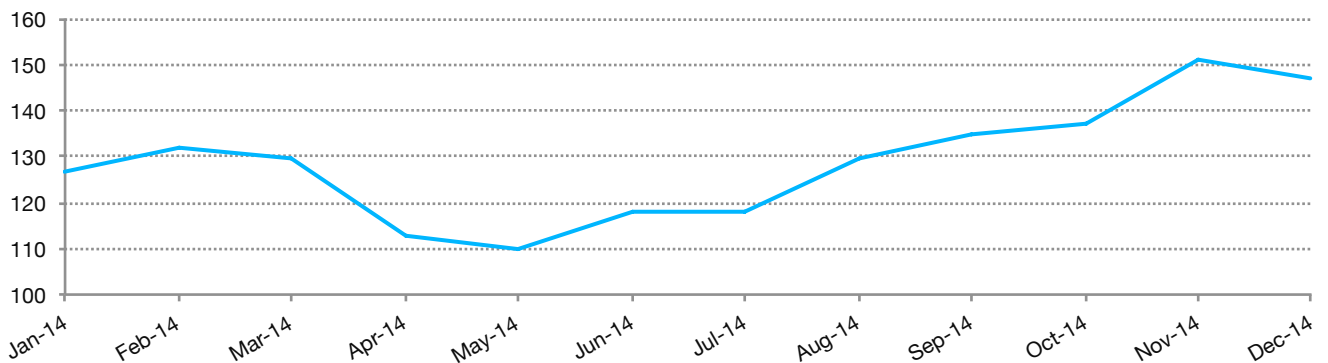


The number of IXPs we collected data from in this region has been very stable this year (16 to 17 IXPs). The average peak traffic per IXP increased with 33% in the APIX region in 2014, going from 70 Gbps to 93 Gbps.

The peaks ranged from 55 Mbps to 354 Gbps in January and from 330 Mbps to 435 Gbps in December. In terms of traffic, the leading IXPs in the Asia-Pacific region are HKIX in Hong-Kong, JPNAP in Tokyo, JPIX in Tokyo and KINX in Seoul. For these 4 IXPs, the traffic peaks above 100 Gbps each month.

Af-IX Region

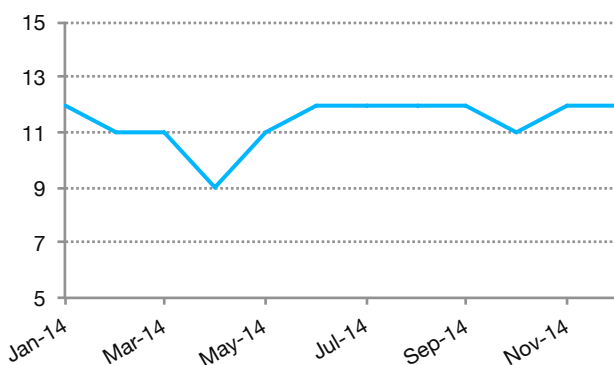
> Total aggregated traffic growth in the Af-IX region (in Gbps)



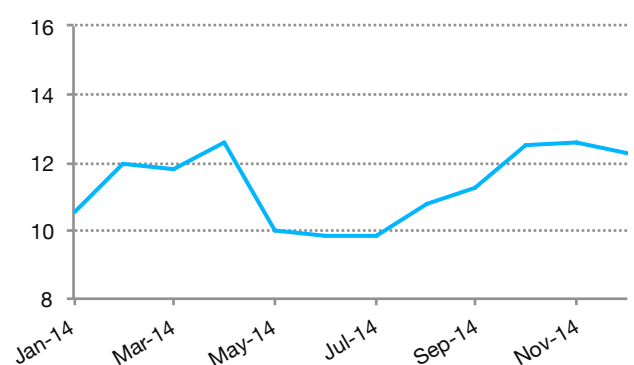
The total aggregated peak traffic in the Af-IX region has increased with 16% over the past 12 months, going from 127 Gbps in January to 147 Gbps in December. These numbers are based on data collected from 11 IXPs on average, over public peering LAN. The sudden drop in April and May can partially be explained by the temporary decrease of IXPs monitored those months (with some IXP data unavailable at the time).

Unlike in the Euro-IX region, there was no decrease of traffic occurring mid year. The traffic has been growing steadily from May to November and dropped a little in December.

> Number of IXPs monitored in the Af-IX region



> Average peak traffic per IXP (in Gbps)

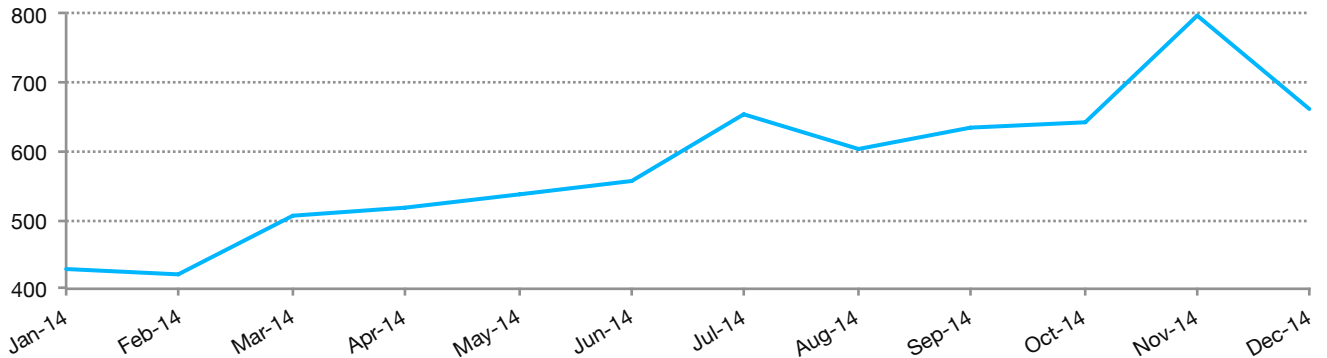


The average peak traffic per IXP increased with 9% in the Af-IX region over 12 months, going from 11 Gbps to 12 Gbps. The traffic peaks ranged from 11 Kbps to 106 Gbps in January and from 83 Mbps to 105 Gbps in December.

The largest IXP in terms of traffic is TunIXP (Tunis) which is the only one of this region with a traffic peaking between 80 and 100 Gbps each month. It is followed by NapAfrica (Johannesburg, Durban and Cape Town) which showed the most impressive traffic growth in 2014 (increase of 450% and now peaking above 20 Gbps), and Jinx (Johannesburg) with a traffic peaking around 10 Gbps each month.

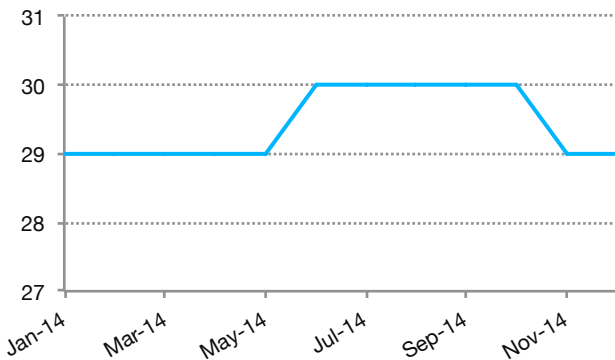
LAC-IX Region

> Total aggregated traffic growth in the LAC-IX region (in Gbps)

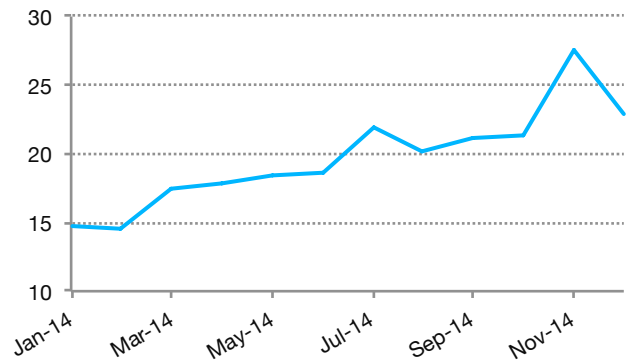


The total aggregated peak traffic in the LAC-IX region has increased with 55% over the past 12 months, going from 428 Gbps in January to 664 Gbps in December, with a drop in August and another and more significant one in December (start of the summer holiday season in this region). The numbers are based on data collected from 29 to 30 IXPs, over public peering LAN.

> Number of IXPs monitored in the LAC-IX region



> Average peak traffic per IXP (in Gbps)

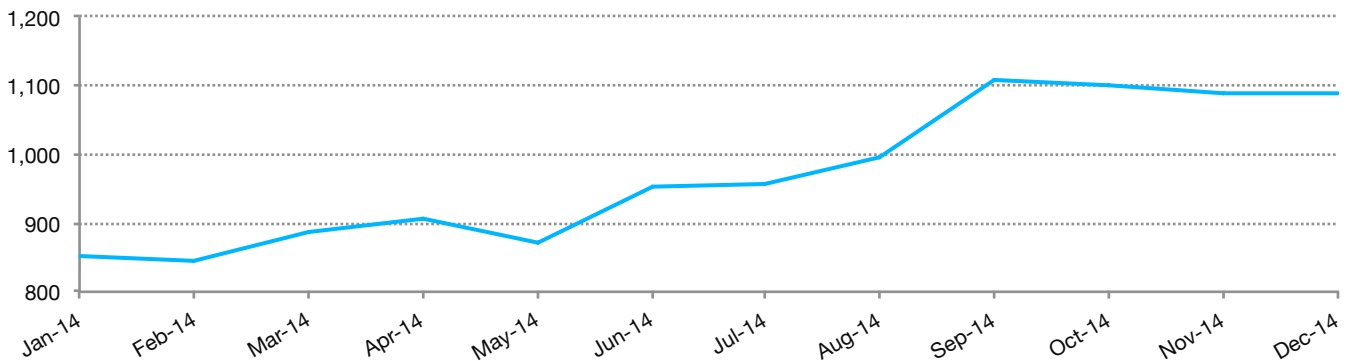


The average peak traffic per IXP increased with 53% in the LAC-IX region in 2014. It went from 15 Gbps to 23 Gbps. The peaks ranged from 4 Mbps to 350 Gbps in January and from 2 Mbps to 545 Gbps in December.

The largest IXP of this region remains PTT.br which operates in 26 locations in Brazil, including Sao Paulo where the traffic has grown with 56% this year and is now peaking above 500 Gbps each month.

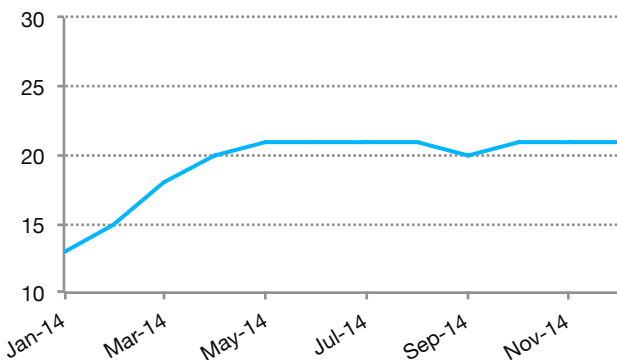
North America

> Total aggregated traffic growth in North America (in Gbps)

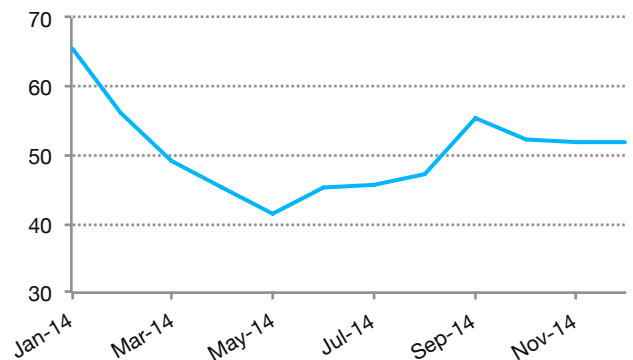


The total aggregated peak traffic in North America has increased with 28% over the past 12 months, going from 852 Gbps in January to 1,089 Gbps in December, with a small drop in May, and a stabilization after September. The numbers are based on data collected from 19 IXPs on average, over public peering LAN.

> Number of IXPs monitored North America



> Average peak traffic per IXP (in Gbps)



The number of IXPs we collect data from went from 13 in January to 21 in December. The traffic peaks ranged from 7 Kbps to 280 Gbps in January and from 9 Mbps to 322 Gbps in December. The largest IXPs in this region are SIX in Seattle, NYIIX in New York (both showing a traffic peaking above 300 Gbps each month), and Torix in Toronto with a monthly peak exceeding 100 Gbps.

Unlike all the other regions, the average peak traffic per IXP decreased with 21% in 2014 going from 66 Gbps in January to 41 Gbps in May and back up to 52 Gbps in December. This can be explained by the addition of small or recently established exchanges (with a low level of traffic) to the list of IXPs monitored in this region.