

AP-IX
February 2024

IXP Tracker



[name]

[title]

[email]

Pulse tracks



Shutdowns: Where do Internet shutdowns take place?



Net Loss: Estimate the economic impacts of Internet shutdowns.



Technologies: Tracking the deployment of technologies critical for the evolution of the Internet.



Concentration: How much are services concentrated in the hands of a few?



Resilience: How robust is the Internet ecosystem?



IXP Tracker: monitors the growth of IXP's globally



IXP Tracker



IXP Tracker (now and future)

Monitors growth and development

Tracks key growth metrics of IXPs globally

Evaluates performance and reliability

Provides information on the performance and resilience of networks at the IXP.

Facilitates network optimization

Provides up-to-date information to enable data-driven peering decisions.

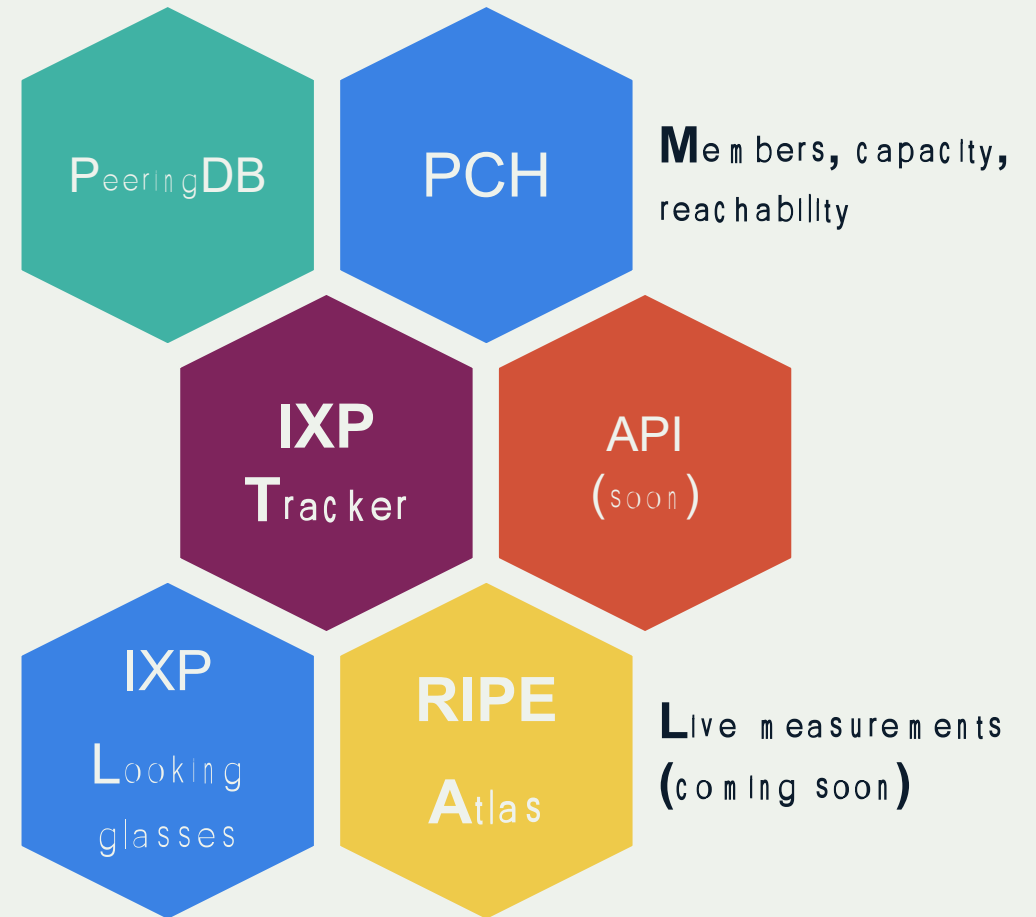
Foster community engagement

Provides a platform for IXP members to connect, share knowledge, and collaborate.



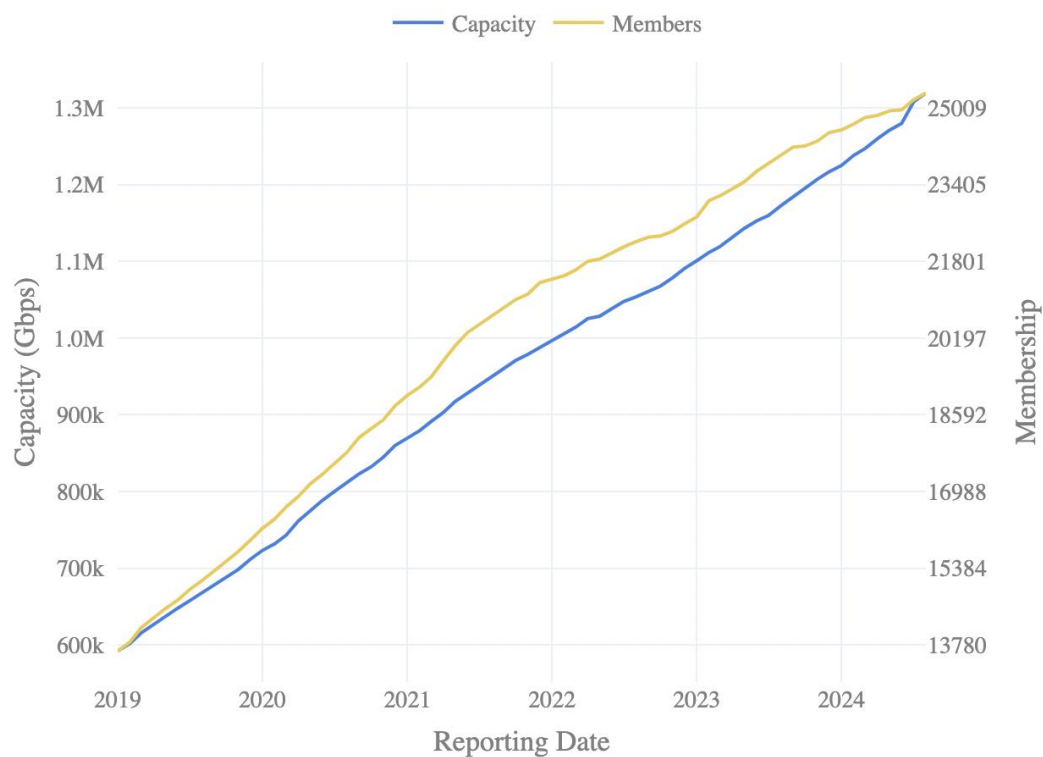
Components

1. **C**ollects data on more than 1000 IXP's globally from **P**eering**DB/PCH**.
2. **P**rovides information about capacity and membership growth.
3. **S**hows a country and an **IXP** view.



IXP capacity growth over time

The global total of IXPs over time, shown along with the growth in combined capacity offered by the world's IXPs.



Top 10 countries/territories by IXP coverage

Internet users in these countries have the highest proportion of access to their local Internet via IXPs.

- [Suriname](#) : 85.71%
- [Sint Maarten \(Dutch part\)](#) : 75.00%
- [Saint Martin \(French part\)](#) : 71.43%
- [Trinidad and Tobago](#) : 66.67%
- [Saint Kitts and Nevis](#) : 62.50%
- [Djibouti](#) : 60.00%
- [Grenada](#) : 60.00%
- [Réunion](#) : 57.14%
- [Burundi](#) : 55.56%
- [South Africa](#) : 53.77%



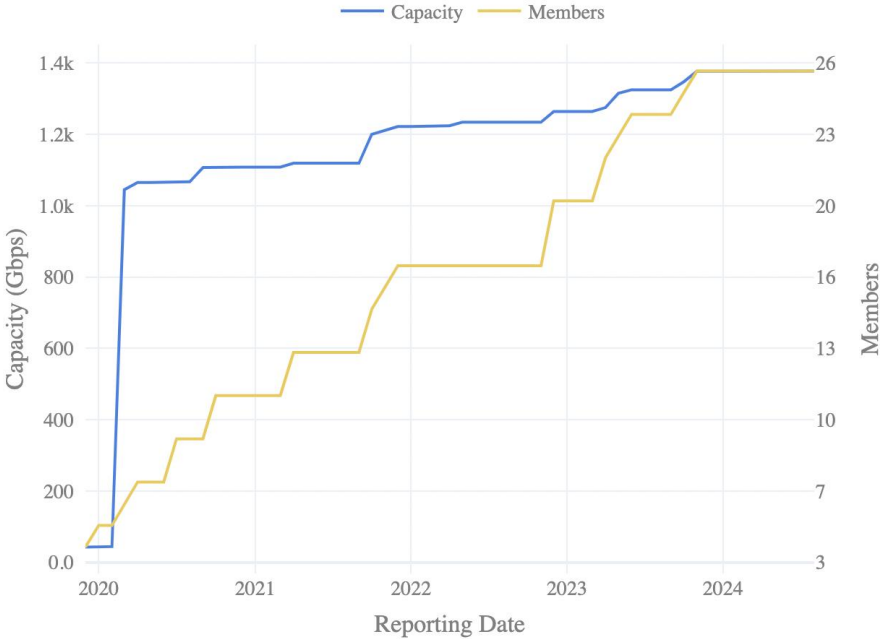
Country:

Congo (the Democratic Republic of the)

Select

IXP capacity growth over time in Congo (the Democratic Republic of the)

The total of IXPs over time, shown along with the growth in combined capacity.



Congo (the Democratic Republic of the)

Active Internet Exchange Points

The total number of IXPs in operation in Congo (the Democratic Republic of the), as of August 2024.

4

Active IXPs

33.33 %

Proportion of the local Internet that can be reached through IXPs in this country.

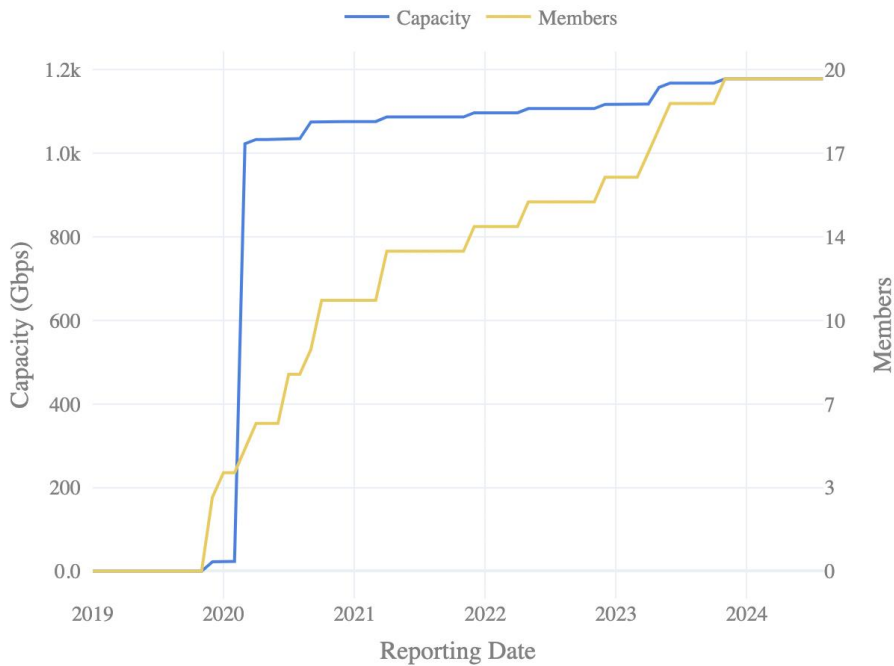
IXPs in Congo (the Democratic Republic of the)

IXP Name	Location
Africa Congo Internet eXchange - ACIX	Kinshasa
Goma Internet eXchange - GOMIX	Goma
KINshasa Internet eXchange - KINIX	Kinshasa
Lubumbashi internet exchange point - LUBIX	Lubumbashi

23.53 %
of ASNs

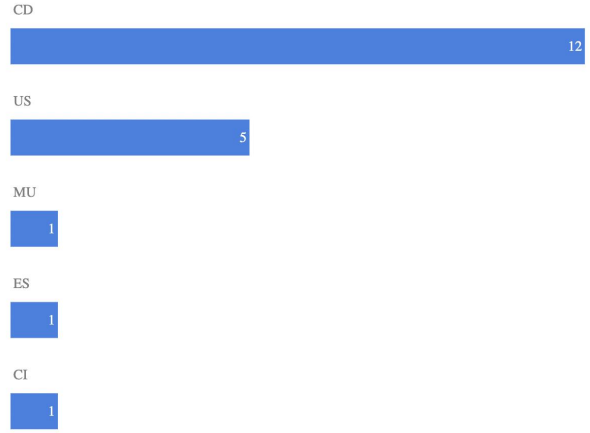
How this IXP has grown over time

The number of members in this IXP, shown along with the total capacity available.



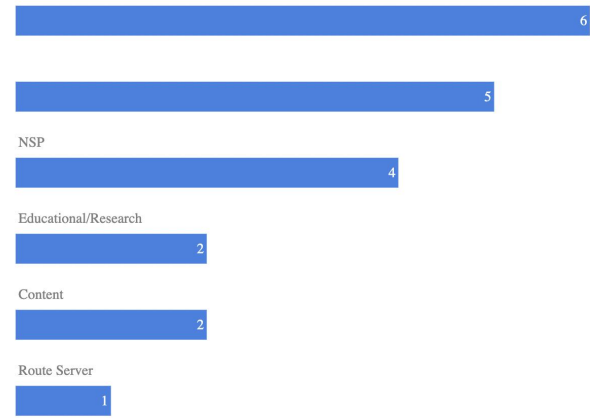
Members

Countries of registration



AS Types

Cable/DSL/ISP



AS Name	ASN	AS Type	Member Since	RS Peer	Speed	Registration Country
Afrinet	37415	NSP	Sept. 23, 2020	Yes	1000	Congo (the Democratic Republic of the)
AFR-IX Telecom	60171	NSP	March 22, 2021	Yes	10000	Spain
Airtel DRC AS37020	37020	—	Nov. 6, 2019	Yes	20000	Congo (the Democratic Republic of the)
Cloudflare	13335	Content	April 12, 2023	Yes	40000	United States of America
Global Broadband Solution	43256	NSP	Dec. 2, 2019	Yes	1000	United States of America
GVA	36924	Cable/DSL/ISP	Oct. 26, 2023	No	10000	Côte d'Ivoire
ITM DR Congo	37571	—	March 9, 2023	Yes	1000	Congo (the Democratic Republic of the)

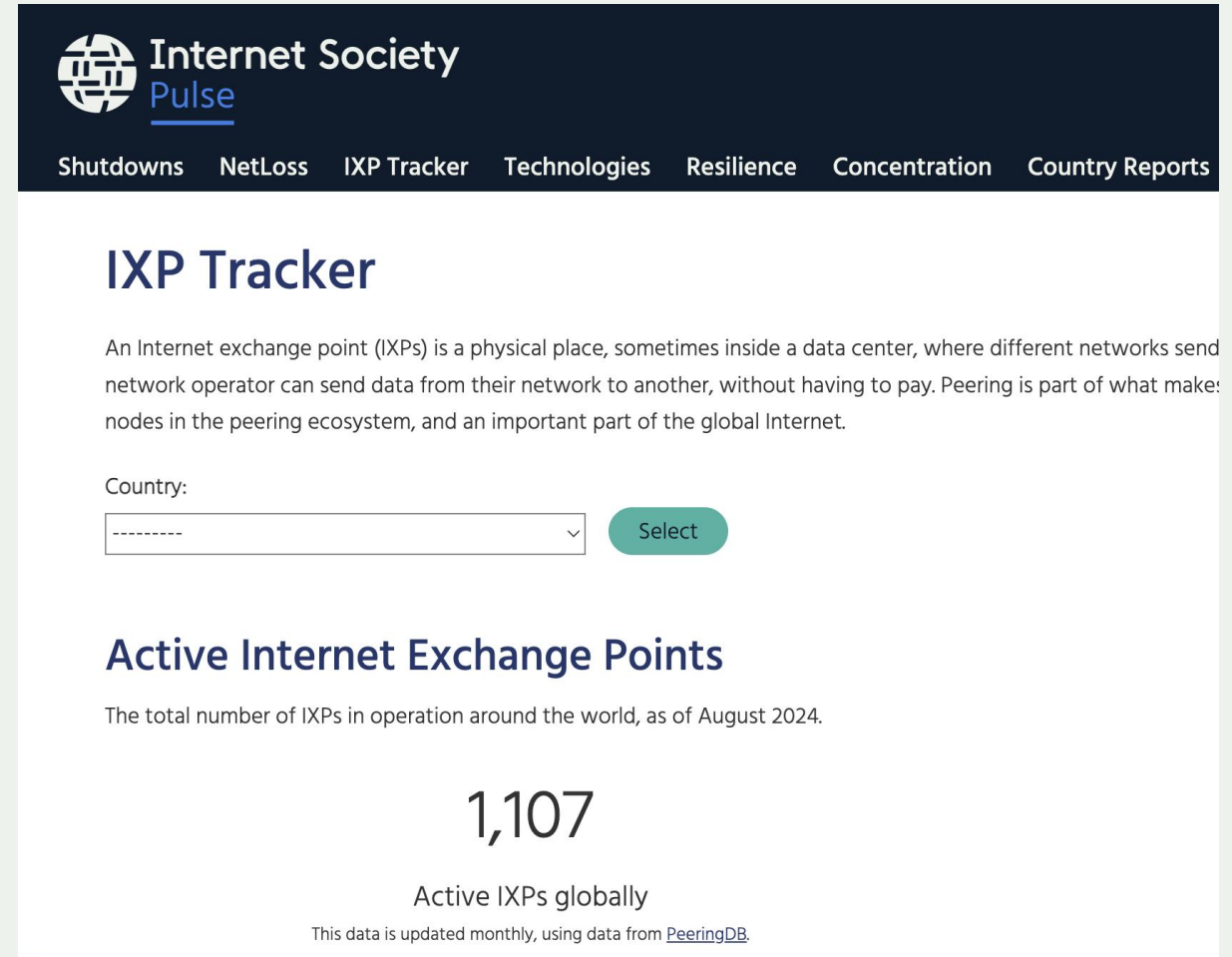


IXP Tracker 2.0



Additional features

- **AS level:** shows details about IXP's where a given AS is connected, including prefixes, address space and customer cone.
- **Prefix level:** displays information about all the IXP's a given prefix is reachable, including AS Path length metrics.
- **Compare two IXP's:** reachability (prefixes and networks reachable), customer cone, AS Path length.
- **Network benefits calculator:** We can ask an AS to upload its routing table into the IXP Tracker and select an IXP to see the networking benefits.



The screenshot shows the 'Internet Society Pulse' website. The navigation bar includes links for 'Shutdowns', 'NetLoss', 'IXP Tracker', 'Technologies', 'Resilience', 'Concentration', and 'Country Reports'. The main heading is 'IXP Tracker'. Below it, a paragraph explains that an Internet exchange point (IXPs) is a physical place where different networks send data. A form with a 'Country:' label, a dropdown menu, and a 'Select' button is present. The section 'Active Internet Exchange Points' displays the number '1,107' and the text 'Active IXPs globally'. A footer note states: 'This data is updated monthly, using data from [PeeringDB](#)'.

Internet Society Pulse

Shutdowns NetLoss IXP Tracker Technologies Resilience Concentration Country Reports

IXP Tracker

An Internet exchange point (IXPs) is a physical place, sometimes inside a data center, where different networks send network operator can send data from their network to another, without having to pay. Peering is part of what makes nodes in the peering ecosystem, and an important part of the global Internet.

Country: Select

Active Internet Exchange Points

The total number of IXPs in operation around the world, as of August 2024.

1,107

Active IXPs globally

This data is updated monthly, using data from [PeeringDB](#).

Region view - Statistics

Select Region: LACNIC

IP Version: v4

35

Number of IXPs



1

Number of Countries



2906

ASes connected to at least one IXP in the region.



30177

ASes reachable through IXPs in the region.



272398

IPv4 prefixes announced at IXPs in the region.



1282468

IPv4 prefixes (/24) announced at IXPs in the region.



20.84 %

of total region allocated ASes are members of at least one IXP from the region



70.39 %

of total region allocated ASes are reachable through IXPs from the region

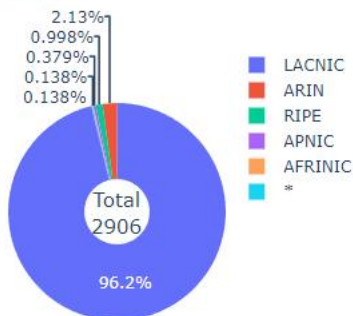


31.36 %

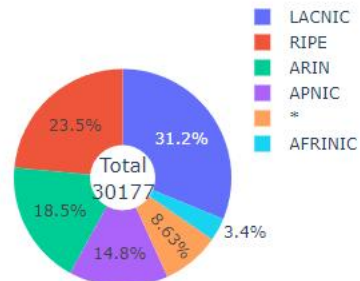
of total region address space is reachable through IXPs from the region



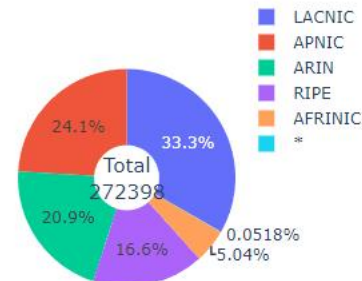
ASes connected to at least one IXP in the region.



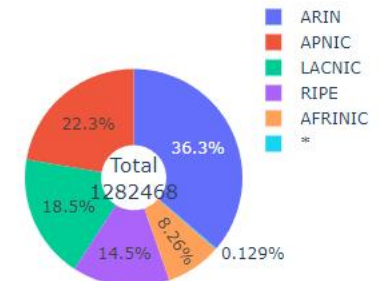
ASes reachable through IXPs in the region.



IPv4 prefixes announced at IXPs in the region.

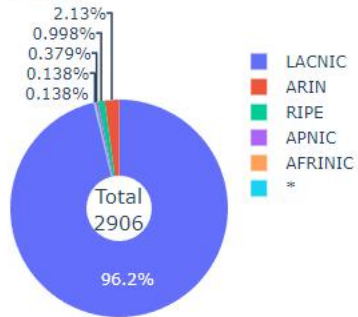


IPv4 prefixes (/24) announced at IXPs in the region.

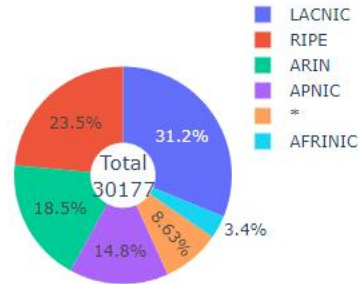


Region view - Table (ASes)

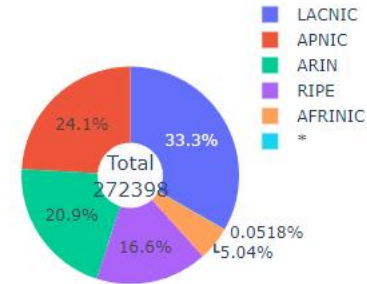
ASes connected to at least one IXP in the region.



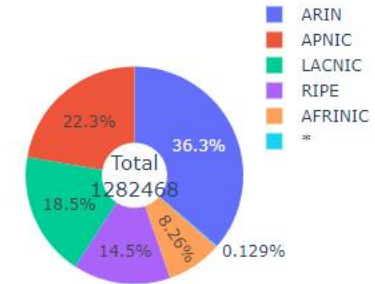
ASes reachable through IXPs in the region.



IPv4 prefixes announced at IXPs in the region.



IPv4 prefixes (/24) announced at IXPs in the region.



AS Numbers in LACNIC Region

Rows per page: 10

	ASN	ASN Type	ASN Name	Member at Regional IXPs	Reachable at Regional IXPs	Member at Other Region's IXPs	Reachable at Other Region's IXPs
<input type="radio"/>	278			0	0	0	0
<input type="radio"/>	676			0	0	0	0
<input checked="" type="radio"/>	1251			1	23	0	0
<input type="radio"/>	1292			0	0	0	0
<input type="radio"/>	1296			0	0	0	0
<input type="radio"/>	1797			0	4	0	0
<input type="radio"/>	1831			0	0	0	0
<input type="radio"/>	1840			0	0	0	0
<input type="radio"/>	1916			23	0	0	0
<input type="radio"/>	2146			0	0	0	0

Member at Regional IXPs:

- IX.br São Paulo

Reachable at regional IXPs:

- IX.br Aracaju

Same analysis for Country view...

Select Region: LACNIC

IP Version: v4

Select Country: Brazil

35

Number of IXPs in the country



2906

ASes connected to at least one IXP in the country



30177

ASes reachable through IXPs in the country



272398

IPv4 prefixes announced at IXPs in the country



1282468

IPv4 prefixes (/24) announced at IXPs in the country



30.84 %

of total Country allocated ASes are members of at least one IXP in the Country



87.73 %

of total Country allocated ASes are reachable through IXPs in the Country

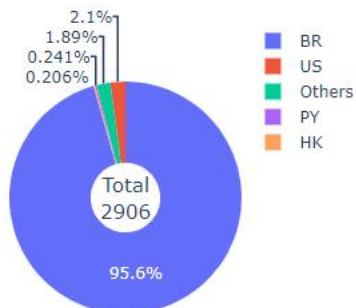


51.63 %

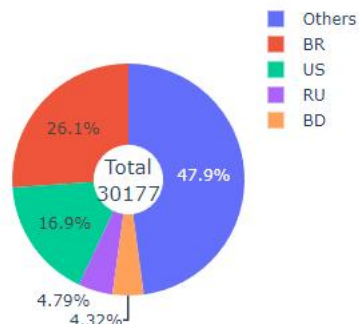
of total Country address space is reachable through IXPs in the Country



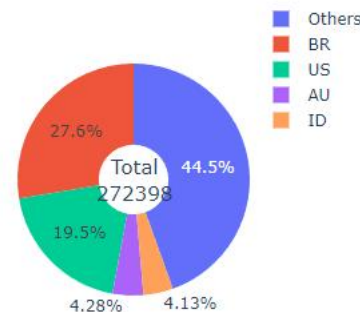
ASes connected to at least one IXP in the Country.



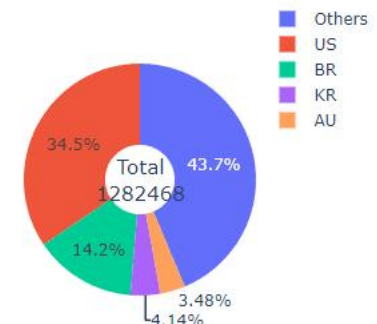
ASes reachable through IXPs in the Country.



IPv4 prefixes announced at IXPs in the Country.



IPv4 prefixes (/24) announced at IXPs in the Country.



IXP view - Statistics

Select Region: LACNIC

IP Version: v4

Select Country: Brazil

Select IXP: IX.br São Paulo

2048

ASes connected to the IXP



24173

ASes reachable through the IXP



179989

IPv4 prefixes announced at the IXP



851446

IPv4 prefixes (/24) announced at the IXP



21.40 %

of total Country allocated ASes are members of the IXP



83.34 %

of total Country allocated ASes are reachable through the IXP

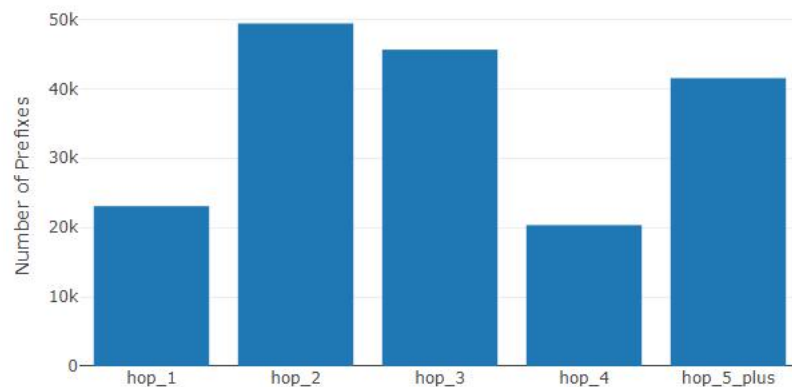


37.72 %

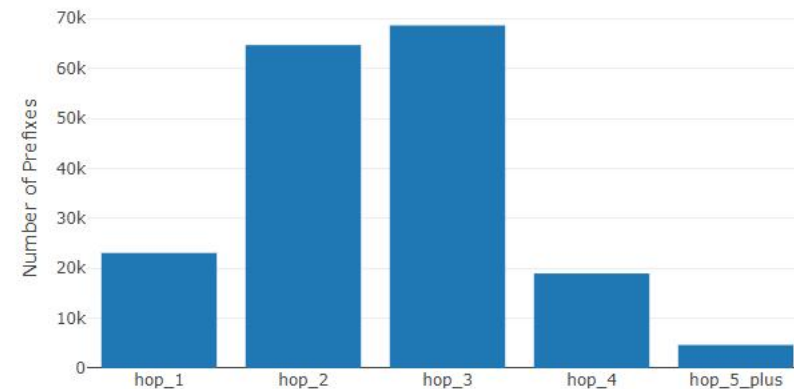
of total Country address space is reachable through the IXP



Prefixes Histogram

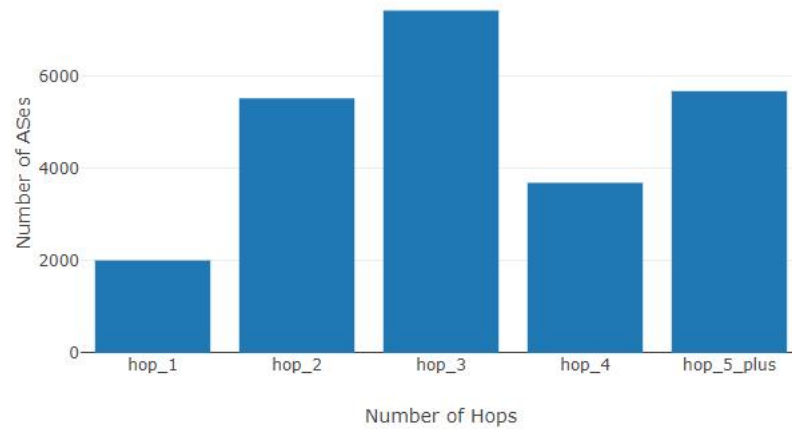


Prefixes Histogram without prepend

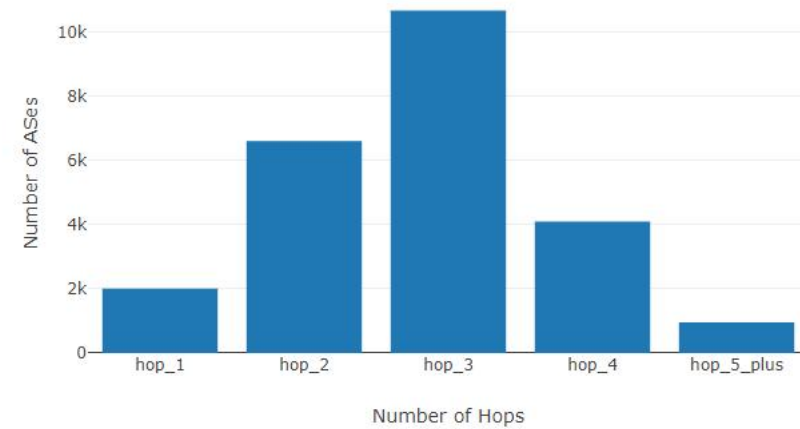


IXP view - Table

ASes Histogram



ASes Histogram without prepend



AS Numbers in IX.br São Paulo

Rows per page: 10

ASN	ASN Type	ASN Name	Country	Originated Prefixes	Cone Prefixes	Originated Adress space (/24)	Cone Adress space (/24)
328366				7	2	56	5
37468				13	1275	32	8480
37645				40	2	308	5
37721				21	157	60	804
137831				0	5	0	5
139341				15	0	15	0
10099				1	0	1	0
23764				1	47	1	96
45474				37	25	37	25
135391				2	0	2	0

AS view

Select ASN: 1916

IXP Name	Member or Reachable	Originated Prefixes	Cone Prefixes	Originated Address space(/24)	Cone Address space(/24)
IX.br Belém	?	85	511	2041	5955
IX.br Boa Vista	?	86	511	2045	5955
IX.br Manaus	?	85	510	2041	5955
IX.br Fortaleza	?	85	430	2806	8593
IX.br Aracaju	?	85	508	2041	5908
IX.br Campina Grande	?	85	511	2041	5955
IX.br Maceió	?	86	511	2045	5955
IX.br Natal	?	85	506	2041	5891
IX.br Recife	?	85	495	2041	5744
IX.br Salvador	?	85	508	2806	9002
IX.br São Luís	?	86	510	2045	5954
IX.br Teresina	?	85	508	2041	5951
IX.br Brasília	?	85	495	2041	5733
IX.br Campo Grande	?	86	508	2045	5908
IX.br Cuiabá	?	85	497	2041	5881
IX.br Goiânia	?	85	494	2041	5744
IX.br São Paulo	?	86	397	2810	8107
IX.br Rio de Janeiro	?	166	485	2043	5448
IX.br Belo Horizonte	?	85	484	2041	5565
IX.br Vitória	?	85	506	2041	5906
IX.br Curitiba	?	85	421	2806	7916
IX.br Florianópolis	?	169	557	2048	5244
IX.br Porto Alegre	?	85	372	2041	4876

Thank you.

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