

The Peering Database

The [Peering Database](#) is a freely available, user-maintained database of networks which take part in the global Internet. It is considered the authoritative source of all information relating to network operators who participate in peering around the world.

The database facilitates the global interconnection of networks at Internet Exchange Points (IXPs), data centres, and other interconnection facilities, and is the first stop in making interconnection decisions.

- [Background](#)

Background

In the early Internet (of the 1990s) there were few network operators and interconnect points around the world that interconnections were relatively straightforward to seek out and implement (in the author's experience anyway). In March 1999 there were 4640 ASNs in the Internet with only 800 providing transit. This compares with today's total exceeding 73000 ASNs and over 10000 ASNs providing transit, never mind that almost every country in the world now has at least one Internet Exchange Point if not a datacentre facilitating commercial interconnects.

In the 1990s establishing new interconnects by attending in major Internet operations meetings (NANOG, RIPE, AfNOG, APRICOT and so on), with network information passed on by word of mouth or email or even by letter!

With the rapid growth of the Internet in the late 1990s and early 2000s, there needed to be a more scalable way for a Network Operator to get their "peering information" out to the global Internet operations community. And hence the PeeringDB was born.

What is the Peering DB

The Peering DB is a repository of the important information that network operators need to determine whether an interconnection is feasible, makes commercial sense, makes technical sense, and is even technically feasible. While the Peering DB website has much more detailed information, the Peering Toolbox is highlighting the key points.

Here are some example entries to show what is possible. The first example (publicly accessible) is of LINX, the London Internet Exchange:

Last update:

2022/05/06 peering-toolbox:the_peering_database https://www.bgp4all.com/pfs/peering-toolbox/the_peering_database?rev=1651814674
05:24

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LINX LON1 Silver Sponsor

Peers	811	Connections	913	Open Peers	598	Total Speed	38.2T	% with IPv6	85
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Organization LINX

Also Known As

Long Name London Internet Exchange Ltd.

City London

Country GB

Continental Region Europe

Media Type Ethernet

Service Level Not Disclosed

Term Not Disclosed

Last Updated 2020-06-29T07:53:16Z

Notes used to be Juniper LAN [Translate](#)

Contact Information

Company Website	https://www.linx.net/
Traffic Stats Website	https://portal.linx.net/
Technical Email	support@linx.net
Technical Phone	+44 1071 550 000
Policy Email	info@linx.net
Policy Phone	+44 1071 550 000
Sales Email	+44 1071 550 000
Sales Phone	+44 1071 550 000
Health Check	View Status

LAN

MTU	1500
IX-F Member Export URL	Private

Peers at this Exchange Point [Filter](#)

Peer Name	IPv4	ASN	Speed	Policy
(as) networks	33920	195.66.225.115	2G	Selective
BT Telecom (BT)	201003	2001:7B:4::8400:1	10G	Open
	195.66.227.214			
	2001:7B:4::3:14cd:1			
012 Smile Telecom	9116	2001:7B:4::239c:1	10G	Open
012 Smile Telecom	9116	195.66.226.60	10G	Open
18.1 Versatel Deutschland GmbH	6881	195.66.224.246	100G	Selective
300 Percent IT	20915	195.66.225.213	1G	Open
	195.66.225.213	2001:7B:4::51b3:1		
23M GmbH	47447	195.66.227.70	10G	Open
	2001:7B:4::b957:1			
24Shells Inc	55061	195.66.227.116	10G	Open
	2001:7B:4::d729:1			
31173 Services AB	39351	195.66.226.62	10G	Open
	2001:7B:4::99b7:1			
4D Data Centres Ltd	31463	195.66.227.114	10G	Selective

which shows a screen capture of what is available at their LON1 site, a scrollable list of the participants, how to contact LINX, etc.

The second example below shows that of a AWS (Amazon Web Services), one of the major content networks on the Internet:

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Amazon.com Diamond Sponsor

Organization	Amazon.com
Also Known As	Amazon Web Services
Long Name	
Company Website	https://www.amazon.com
ASN	16509
IRR as-exthost-set	AS-AMAZON
Route Server URL	
Looking Glass URL	
Network Type	Enterprise
IPv4 Prefixes	7500
IPv6 Prefixes	2500
Traffic Levels	Not Disclosed
Traffic Ratios	Balanced
Geographic Scope	Global
Protocols Supported	<input checked="" type="checkbox"/> Unicast IPv4 <input type="checkbox"/> Multicast <input checked="" type="checkbox"/> IPv6 <input checked="" type="checkbox"/> Never via route servers
Last Updated	2022-03-14T23:48:18Z
Public Peering Info Updated	2022-04-27T20:49:30
Peering Facility Info Updated	2022-03-28T23:36:40
Contact Info Updated	2020-12-01T12:29:56Z
Notes	<p>AWS Peering: https://peering.aws/</p> <p>Peering requests:</p> <p>When submitting a peering request, please address the specific regional contact listed below for the location of your request. (i.e. peering requests for London should use peering-eu@amazon.com while peering requests for Singapore should use peering-apac@amazon.com.) This will ensure your request is processed and addressed in a timely fashion. Please do not copy contacts not meant for peering policy in the location of your request.</p> <p>Operational issues:</p> <p>If you experience connectivity issues to Amazon, please</p>

Public Peering Exchange Points [Filter](#)

Exchange	IPv4	ASN	Speed	RS Peer
AKL-IX (Auckland NZ)	16509	2001:7B:11:6:0:407d:0:2	100G	<input type="radio"/>
43.243.21.113				
AKL-IX (Auckland NZ)	16509	2001:7B:11:6:0:407d:0:1	100G	<input type="radio"/>
43.243.21.112				
AMS-IX	16509	60.249.210.100	600G	<input type="radio"/>
	2001:7B:1::a501:6509:1			
AMS-IX	16509	60.249.210.217	600G	<input type="radio"/>
	2001:7B:1::a501:6509:2			
AMS-IX Chicago	16509	206.108.115.36	100G	<input type="radio"/>
	2001:904:38:1::a501:6509:1			
AMS-IX Hong Kong	16509	103.247.138.10	10G	<input type="radio"/>
	2001:d0:296::a501:6509:1			
AMS-IX Hong Kong	16509	103.247.138.74	10G	<input type="radio"/>
	2001:d0:296::a501:6509:2			
AMS-IX Mumbai	16509	223.31.200.29	10G	<input type="radio"/>
	2001:a48:44:100b:0:a501:6509:2			
AMS-IX Mumbai	16509	223.31.200.30	10G	<input type="radio"/>
	2001:a48:44:100b:0:a501:6509:1			
Amsterdam	16509	206.51.46.87	100G	<input type="radio"/>
	2005:600:303:303:87			
Amsterdam	16509	206.72.210.146	100G	<input type="radio"/>
	2001:504:13:146			

Private Peering Facilities [Filter](#)

Facility	ASN	Country	City
151 Front Street West Toronto	16509	Canada	Toronto
16509			
165.16.16.16 Meet-Me Room	16509	United States of America	Newark
165.00.00.00	16509	Canada	Toronto
36 John Street / 260 Front Street West	16509	Canada	Toronto

This one shows the Public peering and Private peering facilities AWS is present at. So a potential peer can check which locations they share with AWS, and then contact them about peering. The page for AWS contains data about number of prefixes, traffic ratios, etc, plus the IP addressing used at the various public Internet connect points. All this is designed to make it easier for prospective peers to assess and reach out to AWS for peering.

And the final example shows Aerelion (formerly Telia Carrier), the operator of AS1299, one of the international transit carriers serving the global Internet:

The screenshot shows the PeeringDB entry for Aerelion (AS1299). The left side displays Aerelion's organization details, including its name, IRR as-set, and various peering facilities. The right side shows two tables: 'Public Peering Exchange Points' and 'Private Peering Facilities', both of which are currently empty. The 'Public Peering Exchange Points' table has a note: 'No filter matches. You may filter by Exchange, ASN or Speed.' The 'Private Peering Facilities' table has a note: 'No filter matches. You may filter by Facility, ASN or Speed.'

again showing the type of data that are published in the PeeringDB.

Creating a PeeringDB Entry

The Peering Toolbox recommends (strongly) that any entity with their own AS Number and address space should create an entry in the Peering DB. There is no cost to doing so.

A tutorial on how to create an entry is currently beyond the scope of the Peering DB - but the best advice is to look at other PeeringDB entries and use what those entries have to guide what is needed for your own one.

Simply create an account, and populate it with the mandatory entries - and place as much information there as you possibly can. This should minimally be:

- Organisation name
- Organisation website
- ASN
- IRR as-set (you created one earlier)
- Network Type
- Number of IPv4 prefixes

- Number of IPv6 prefixes
- Traffic Levels
- Traffic Ratios (inbound to your network, or out from your network)
- Geographic Scope (ie what locations do you serve)
- Protocols supported (IPv4 and IPv6 are common)
- Peering Policy (Open, Selective, Restricted)
- Contact information (NOC, Policy/Admin, Technical)
- Public Peering Points (if applicable)
- Private Peering Facilities (if applicable)

Why a PeeringDB entry

Today very few network operators will consider peering with an entity that has no PeeringDB entry. In fact, many will make it a requirement before they will even respond to a peering request. Indeed, some operators will go as far as using information in the PeeringDB for configuring peering sessions with their peers, making it essential that the entries are kept up to date.

Therefore, the Peering Toolbox recommendation is that all Network Operators with their own Internet Resources and who wish to take part in the global peering community must create and maintain their PeeringDB entry.

[Back to "What I need to Peer" page](#)

From:
<https://www.bgp4all.com/pfs/> - Philip Smith's Internet Development Site



Permanent link:
https://www.bgp4all.com/pfs/peering-toolbox/the_peering_database?rev=1651814674

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