

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.

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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:

PeeringDB Search here for a network, IX, or facility. Advanced Search phases ≡

LINX LON1 Silver Sponsor

Peers	Connections	Open Peers	Total Speed	% with IPv6
811	913	608	39.2T	85

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 20 7906 1000](#)

Policy Email info@linx.net

Policy Phone [+44 20 7906 1000](#)

Sales Email

Sales Phone [+44 20 7906 1000](#)

Health Check

LAN

MTU	1500
IX-F Member Export URL	Private
Visibility	

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:

PeeringDB Search here for a network, IX, or facility. Advanced Search phases ≡

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-ext-route-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="radio"/> Unicast IPv4 <input type="radio"/> Multicast <input checked="" type="radio"/> IPv6 <input checked="" type="radio"/> Never via route servers
Last Updated	2022-03-14T23:46:18Z
Public Peering Info Updated	2022-04-27T20:49:30
Peering Facility Info Updated	2022-03-28T23:35:40
Contact Info Updated	2020-12-01T12:29:55Z
Notes	AWS Peering: https://peering.aws/ Peering requests: 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-emea@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.
Operational issues:	If you experience connectivity issues to Amazon, please

Public Peering Exchange Points

Exchange	ASN	Speed	RS Peer
AKL-IX (Auckland NZ)	16509	100G	○
43.243.21.113	2001:7fa:11:6::407d:0:2		
AKL-IX (Auckland NZ)	16509	100G	○
43.243.21.112	2001:7fa:11:6::407d:0:1		
AMS-IX	16509	600G	○
80.249.210.100	2001:7fa:1::a501:6509:1		
AMS-IX	16509	600G	○
80.249.210.217	2001:7fa:1::a501:6509:2		
AMS-IX Chicago	16509	100G	○
206.108.115.36	2001:504:38:1::a501:6509:1		
AMS-IX Hong Kong	16509	10G	○
103.247.139.10	2001:d0:296::a501:6509:1		
AMS-IX Hong Kong	16509	10G	○
103.247.139.74	2001:d0:296::a501:6509:2		
AMS-IX Mumbai	16509	10G	○
223.31.200.29	2001:a48:44:100b::a501:6509:2		
AMS-IX Mumbai	16509	10G	○
223.31.200.30	2001:a48:44:100b::a501:6509:1		
Any2Any	16509	100G	○
206.51.46.87	2005:600:303:303::87		
Any2Any	16509	100G	○
206.72.210.146	2001:504:13:146		

Private Peering Facilities

Facility	Country
151 Front Street West, Toronto	Canada
16509	Toronto
165 Hickey Meet-Me Room	United States of America
16509	Newark
35 John Street / 250 Front Street West	Canada
16509	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:

Organization	Aerelion
Also Known As	Aerelion, via Telia Carrier
Long Name	
Company Website	https://www.aerelion.com/
ASN	1299
IRR as-set/route-set	RIPE:AS-TELIANET RIPE:AS-TELIANET-V6
Route Server URL	
Looking Glass URL	https://lg.twelve99.net/
Network Type	NSP
IPv4 Prefixes	580000
IPv6 Prefixes	100000
Traffic Levels	100+Tbps
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	2022-02-04T13:28:51Z
Public Peering Info Updated	
Peering Facility Info Updated	2022-04-28T18:22:06
Contact Info Updated	2021-09-09T14:07:44
Notes	<p>AS1299 is matching RPKI validation state and reject invalid prefixes from peers and customers. Our looking-glass marks validation state for all prefixes. Please review your registered ROAs to reduce number of invalid prefixes.</p> <p>All trouble ticket requests or support related emails should be sent to support@arelion.com.</p> <p>As of June 1 2021, Aerelion and its affiliates are no longer part of or affiliated with Telia Company.</p>

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.

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From:

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

Permanent link:

https://www.bgp4all.com.au/pfs/peering-toolbox/the_peering_database?rev=1661498168

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