What is PeeringDB?

Mission statement: “PeeringDB, a nonprofit member-based organization, facilitates the exchange of user maintained interconnection related information, primarily for Peering Coordinators and Internet Exchange, Facility, and Network Operators.”
Why should you have a PeeringDB Record?

- As a network operator, a PeeringDB record makes it easy for other networks to find you, and helps you to establish peering / interconnection

- Provides a friendly GUI and powerful tools for automation and authentication
Governance and Membership

• PeeringDB is a United States 501(c)(6) volunteer organization that is 100% funded by sponsorships

• Healthy organization, building financial reserves and executing the long term strategic plan

• Membership rules
  • A corporation, limited liability company, partnership or other legal business entity may be a Member of the Corporation
  • Membership is determined by having both an active PeeringDB.com account and an individual representative or role subscription to the PeeringDB Governance mailing list
  • Governance list is at http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov
  • More information available at http://gov.peeringdb.com/
# Committees

<table>
<thead>
<tr>
<th>Admin Committee</th>
<th>Operations Committee</th>
<th>Outreach Committee</th>
<th>Product Committee</th>
</tr>
</thead>
</table>
| • Manage administration of user accounts and PeeringDB records | • Manage PeeringDB infrastructure | • Manage marketing and social media  
• Develop and maintain presentations, workshops and webinars  
• Coordinate presentations and attendance at events | • Manage roadmap and development priorities  
• Ask for input from the community on desired features  
• Write SoWs to solicit bids to complete requested features |
| Leads: Arnold Nipper (Chair) and Darwin Da Costa (Vice Chair)  
Contact: admincom@lists.peeringdb.com | Leads: Job Snijders (Chair) and Aaron Hughes (Vice Chair)  
Contact: pdb-ops@lists.peeringdb.com | Leads: Ben Ryall (Chair) and Bijal Sanghani (Vice Chair)  
Contact: outreachcom@lists.peeringdb.com | Leads: Stephen McManus (Chair) and Matt Griswold (Vice Chair)  
Product Manager: Leo Vegoda  
Contact: productcom@lists.peeringdb.com |
Admin Committee volunteers are based around the world in a variety of time zones with diverse language skills.

Goal is to resolve support tickets within 24 hours.

Support Ticket Statistics

• Total Tickets/Year

- Series 1
- Series 2

2012: 0.00
2013: 1.00
2014: 1.06
2015: 1.27
2016: 4.39
2017: 8.75
2018: 21.39
2019: 27.68
2020: 27.93
2021: 29.29

Series 1 and Series 2 saw a 300% increase from 2012 to 2021.
Product Development Workflow

- All issues tracked using GitHub at [https://github.com/peeringdb/peeringdb/issues](https://github.com/peeringdb/peeringdb/issues)
  - Anyone can open a feature requests or file a bug report
  - Open and transparent process for product development
  - Workflow is at [http://docs.peeringdb.com/workflow/](http://docs.peeringdb.com/workflow/)

- Product Committee issue process
  - Evaluate and prioritize the requests
  - Request a quote for development costs
  - Request budget from the board
  - Manage implementation and scheduling

- Your input is needed on features!

---

6 May 2021

Teraco Virtual Tech Day
Product Development

- All issues tracked using GitHub at https://github.com/peeringdb/peeringdb/issues
  - Anyone can open a feature requests or file a bug report
  - Open and transparent process for product development
  - Workflow is at http://docs.peeringdb.com/workflow/

- Product Committee issue process
  - Evaluate and prioritize the requests
  - Request a quote for development costs
  - Request budget from the board
  - Manage implementation and scheduling

Your input is needed on features!
Release Process

• Announced at least one week in advance with all changes to give the community notice
  • Beta site is already running the development version for testing
  • Announced on PDB Announce list, Twitter, Facebook

• Released on Wednesdays at 0400Z and avoids
  • Mondays and Fridays
  • International holidays
  • Large conferences and events (APRICOT, EPF, GPF, NANOG, RIPE, etc.)

• List of current changes (release notes) for each version are on GitHub at https://github.com/peeringdb/peeringdb/milestones
Internationalization Support

1. Go to Your Profile

2. Choose Your Language and Click “Set language preference”

3. Text Now Appears in the Selected Language!
How to Contribute to Translations

1. Open a new issue named “Please generate locale files” on the GitHub issue page: https://github.com/peeringdb/peeringdb/issues

2. Your language / locale will be added to https://translate.peeringdb.com

3. Add yourself for selected languages / locales
   • Login to https://translate.peeringdb.com with your PeeringDB credentials
   • Edit your profile https://translate.peeringdb.com/accounts/profile/ and add languages you want to help translating

4. PeeringDB team continuously uploads the files to the beta website
   • You can check your translation on the beta website: https://beta.peeringdb.com/

For more info visit: https://docs.peeringdb.com/translation/
Mailing list: https://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-translate
Beta Development

• Beta server
  • Available at https://beta.peeringdb.com/
  • Runs the latest beta software version
  • Full access over HTTP and the API
  • Database is local to the beta server only, changes are not reflected on the production servers

• Latest changes
  • Available at https://beta.peeringdb.com/changes
  • Redirects to the list of issues on GitHub
  • Documents all of the changes in the current beta version

• Anyone can log bugs and feature requests in GitHub at https://github.com/peeringdb/peeringdb/issues
Become a PeeringDB Sponsor!

- **Diamond Sponsorship** - $25,000 / year
  - Limited to 2 sponsors
  - Very large logo on top line of Sponsors page with URL
  - Diamond Sponsor badge display on all records
  - Social media promotion

- **Platinum Sponsorship** - $10,000 / year
  - Large logo on second line of Sponsors page with URL
  - Platinum Sponsor badge display on all records
  - Social media promotion

- **Gold Sponsorship** - $5,000 / year
  - Medium logo on third line of Sponsors page
  - Gold Sponsor badge display on all records
  - Social media promotion

- **Silver Sponsorship** - $2,500 / year
  - Small logo on fourth line of Sponsors page
  - Silver Sponsor badge display on all records
  - Social media promotion

---

### Teraco Data Environments

<table>
<thead>
<tr>
<th>Organization</th>
<th>Teraco Data Environments Pty Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Known As</td>
<td>NAPAfrica</td>
</tr>
<tr>
<td>Long Name</td>
<td></td>
</tr>
<tr>
<td>Company Website</td>
<td><a href="http://www.teraco.co.za">http://www.teraco.co.za</a></td>
</tr>
<tr>
<td>ASN</td>
<td>37599</td>
</tr>
<tr>
<td>IRR as-set/route-set</td>
<td>AS-TERACO</td>
</tr>
</tbody>
</table>

### Facebook Inc

<table>
<thead>
<tr>
<th>Organization</th>
<th>Facebook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Known As</td>
<td>Facebook, Instagram, WhatsApp</td>
</tr>
<tr>
<td>Long Name</td>
<td></td>
</tr>
<tr>
<td>Company Website</td>
<td><a href="https://www.facebook.com/">https://www.facebook.com/</a></td>
</tr>
<tr>
<td>ASN</td>
<td>32934</td>
</tr>
<tr>
<td>IRR as-set/route-set</td>
<td>AS-FACEBOOK</td>
</tr>
</tbody>
</table>

Contact [sponsorship@peeringdb.com](mailto:sponsorship@peeringdb.com) for sponsorship info!
Thank you to our sponsors!

Diamond Sponsor

Platinum Sponsors

Gold Sponsors

Silver Sponsors

6 May 2021  Teraco Virtual Tech Day
Information and Resources

• Announce list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-announce
• Governance list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov
• Technical list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-tech
• User Discuss list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/user-discuss
• Docs, presentations, guides, tools: http://docs.peeringdb.com/

• Board and Officers: stewards@lists.peeringdb.com
• Admins: support@peeringdb.com
• Presentation requests: outreachcom@lists.peeringdb.com
• Uptime status: http://status.peeringdb.com/

• Bugs and feature requests: https://github.com/peeringdb/peeringdb/
• Social media:
  - https://www.facebook.com/peeringdb/
  - https://www.linkedin.com/company/peeringdb
  - @PeeringDB
  - https://www.youtube.com/channel/UCOrYWUG-dbl9UTFV_Lry6Wg
Questions?
How To:
Get started as a Network Operator
Please always use the tutorial DB at https://tutorial.peeringdb.com
Registering

6 May 2021 Teraco Virtual Tech Day


PeeringDB is a freely available, user-maintained, database of networks, and the go-to location for interconnection data. The database facilitates the global interconnection of networks at Internet Exchange Points (IXPs), data centers, and other interconnection facilities, and is the first stop in making interconnection decisions.

The database is a non-profit, community-driven initiative run and promoted by volunteers. It is a public tool for the growth and good of the Internet. Join the community and support the continued development of the Internet.

Learn more about PeeringDB or register.

The Interconnection Database

Most Recent Updates

- **Exchanges**
  - LU-CIX
    - 54 minutes ago
  - LONAP
    - 1 days ago
  - IPNET-IX DELHI
    - 1 days ago
  - CAMIX Yaounde
    - 2 days ago
  - CAMIX Douala
    - 2 days ago

- **Networks**
  - REDE SMARTNET
    - 10 minutes ago
  - Eghert Informática
    - 12 minutes ago
  - Coprel Telecom LTDA
    - 23 minutes ago
  - LU-CIX Route Servers
    - 49 minutes ago
  - BITMAIL SERVICOS DE INFORMATICA
    - 57 minutes ago

- **Facilities**
  - Flex Data Center
    - 4 hours ago
  - Atlantic Metro Herndon (IAD4)
    - 4 hours ago
  - SDC Colchester1
    - 16 hours ago
  - DNA Oulu Torikatu
    - 2 days ago
  - CAMPOST Data Center Yaoundé
    - 2 days ago

Advanced Search
Registering

Create account

- Choose a username
  - Password must be at least 10 characters long

Use a real work e-mail address
- Ideally the one you registered the ASN with
- Put in your first and last name
- You will receive a confirmation email
- Click on the link in the email
Register or Request Affiliation to an Existing Organization

1. Go to Your Profile

2. Confirm Email Address
   (Click Here if not Confirmed)

3. Enter ASN or Organization Here
   Autocomplete on Existing ASNs and Organizations in PeeringDB

4. Click “Affiliate”
   Existing: Organization Admin Needs to Approve
   New: Generates a Support Ticket for Validation and Approval
• Network records should already have an organization admin copied from PeeringDB 1.0
• Facility and exchange records will need to have an organization admin assigned

Request Ownership of an Existing Organization

- Click "Request Ownership"
- Generates a Support Ticket for Validation and Approval
**Multiple Records Under a Single Organization**

<table>
<thead>
<tr>
<th>Facilities</th>
<th></th>
<th>Networks</th>
<th></th>
<th>Exchanges</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td><strong>Country</strong></td>
<td><strong>Name</strong></td>
<td><strong>ASN</strong></td>
<td><strong>Name</strong></td>
<td><strong>Country</strong></td>
</tr>
<tr>
<td>IXCardiff</td>
<td>United Kingdom</td>
<td>IXCardiff</td>
<td>21019</td>
<td>IXCardiff</td>
<td>United Kingdom</td>
</tr>
<tr>
<td></td>
<td>Cardiff</td>
<td>IXManchester</td>
<td>6714</td>
<td>IXManchester</td>
<td>United Kingdom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IXScotland</td>
<td>5459</td>
<td>IXScotland</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>LINX NoVA</td>
<td></td>
<td>LINX NoVA (LINX USA Inc.)</td>
<td></td>
<td>LINX NoVA</td>
<td>United States of America</td>
</tr>
<tr>
<td>LINX Route Servers</td>
<td></td>
<td>LINX Route Servers</td>
<td></td>
<td>LINX Route Servers</td>
<td>United States of America</td>
</tr>
<tr>
<td>London Internet Exchange (LINX)</td>
<td></td>
<td>London Internet Exchange (LINX)</td>
<td></td>
<td>London Internet Exchange (LINX)</td>
<td>United States of America</td>
</tr>
</tbody>
</table>

Facilities are Shown Here
LINX has 1 Facility

Networks are Shown Here
LINX has 2 Network Records

Exchanges are Shown Here
LINX has 6 Exchange Records
Account “job” is Affiliated with 4 Organizations
Organization User Management

Approve or Deny Pending Requests

Delegate Permissions for Members
Admins Have Access to Everything

Change User Access Levels
Admin – Administrator
Member – Delegate Permissions

Remove Users From the Organization
Does not Remove the User Account From PeeringDB
### Administrative Permission Delegation

**User “rho” can Manage the “Equinix Connect” Network Record, and Any Exchange or Facility**

**User “equinix-uk” can Manage Several Network Records, but no Exchanges or Facilities**

<table>
<thead>
<tr>
<th>User</th>
<th>Network Records</th>
<th>Exchanges</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>rho</td>
<td>Network - Equinix Connect</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Any Exchange</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any Facility</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>equinix-uk</td>
<td>Network - Equinix Netherlands</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network - Equinix UK</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network - Equinix Germany</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network - Equinix France</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network - Equinix Switzerland</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**Create**
- New Entries in Record

**Update**
- Change Existing Entries in Record

**Delete**
- Delete Entries in Record

---

**Create – New Entries in Record**

**Update – Change Existing Entries in Record**

**Delete – Delete Entries in Record**

---

**Teraco Virtual Tech Day**

6 May 2021
Network Record Contact Information Permissions

Separate Visibility Preferences for Each Role
- Private – Organization Only
- Users – Registered Users Only (Default)
- Public – Anyone (no Login Required)

Roles:
- Abuse
- Policy
- Technical
- NOC
- Public Relations
- Sales
1. Go to your network record and click on “Edit”
2. Start to type in the name of the IXP and select the IXP
3. If the IXP is missing, contact PeeringDB support
4. Add your IP addresses, port speed, and click the “RS Peer” box if you peer with the route server
5. Finally click on “Add Exchange Point”
   • Use the same procedure for adding a Facility
Adding a New Exchange to Your Organization

Add a new Exchange to your Organization. Note that the newly created Exchange will need to be approved by PeeringDB staff before it will appear in the search results or the API listings.

Enter Exchange Info Here, Then Click “Submit Exchange”

Generates a Support Ticket for Validation and Approval
**Editing Your Exchange Record**

Enter Exchange Info Here, Then Click "Save"

Networks are Still Required to Associate their Record at a Facility or Exchange

---

### Example-IX

<table>
<thead>
<tr>
<th>Organization</th>
<th>Example-IX</th>
<th>Example-IX, the only ATM multicast IX on the planet!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Name</td>
<td>Example-IX</td>
<td>Example-IX, the only ATM multicast IX on the planet!</td>
</tr>
<tr>
<td>City</td>
<td>Atlanta</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>Continental Region</td>
<td>North America</td>
<td></td>
</tr>
<tr>
<td>Media Type</td>
<td>ATM</td>
<td></td>
</tr>
<tr>
<td>Protocols Supported</td>
<td>Unicast IPv4, Multicast IPv6</td>
<td></td>
</tr>
<tr>
<td>Contact Information</td>
<td>Company Website</td>
<td><a href="http://www.example.com">http://www.example.com</a></td>
</tr>
<tr>
<td>Traffic Stats Website</td>
<td><a href="http://www.example.com">http://www.example.com</a></td>
<td></td>
</tr>
<tr>
<td>Technical Email</td>
<td><a href="mailto:name@example.com">name@example.com</a></td>
<td></td>
</tr>
<tr>
<td>Technical Phone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Email</td>
<td><a href="mailto:name@example.com">name@example.com</a></td>
<td></td>
</tr>
<tr>
<td>Policy Phone</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Editing Your Exchange Record

Enter LAN Info Here
- Name – Optional
- DOT1Q – 802.1Q Tag
- MTU
- IPv4/IPv6 Addresses

Add Facilities Here
- Autocomplete on Existing Facilities,
- Must Contact Support to Add a New Facility
How To:
Why Adding Users is Important
Adding Users

• You do not have to be the only person with PeeringDB
• Other users from your organization may also register
• User can be “admin” or “member”
  • First user is automatically admin
• Administrators are allowed to edit all fields (for your organization)
• Members rights can be as restrictive or as open – you choose!
Why is it important

- Allow people to find contact details for network
  - Could be peering request
  - Or Operational issues
- Need to be logged in to see contact details
- Organizations build automation based on PeeringDB data
How To:
Automation and Authentication
RESTful API Designed for Automation

• All operations are supported and are designed to be automated
  • Read
  • Create
  • Update
  • Delete

• Each object type has an associated tag
  • Basic types: org, net, ix, fac, poc
  • Derived types: ixfac, ixlan, ixpfx, netfac, netixlan

• List of objects: https://peeringdb.com/apidocs/
• API documentation: http://docs.peeringdb.com/api_specs/
Quick Examples Return Output in JSON

- List all networks: curl -X GET
  https://<username>:<password>@www.peeringdb.com/api/net

- Show a specific network: curl -X GET
  https://<username>:<password>@www.peeringdb.com/api/net/20

```json
{
  "meta": {},
  "data": [{
    "id": 20,
    "org_id": 10356,
    "org": {
      "id": 10356,
      "name": "20C",
      "website": "http://20c.com",
      "notes": "",
      "net_set": [20],
      "fac_set": [],
      "ix_set": [],
      "address1": "",
      "address2": "",
      "city": "Chicago",
      "country": "US",
      "state": "IL",
      "zipcode": "",
      "created": "2014-11-17T14:59:34Z",
      "updated": "2016-03-23T20:39:18Z",
      "status": "ok"
    },
    "name": "20C",
    "aka": "",
    "website": "http://20c.com",
    "asn": 63311,
    ... }]
```
Local Database Sync

- Database sync gives you a local copy of PeeringDB for customization or internal use
  - Sync as often as you like
  - Incremental sync is supported
- Improves performance and reduces load on PeeringDB servers
- Build custom indexes and interfaces
- Add custom fields
- Choice of database engines
  - Currently supported: MySQL, Postgres, SQLite
- Sync using the provided tools or build your own using the API
Django Library

- django-peeringdb is a Django library with a local PeeringDB database sync
- Defines the database schema to create a local database copy
- Easy to integrate in a common framework for locals tools and custom interfaces
- Supports multiple database engines (MySQL, Postgres, SQLite)
- Available at http://peeringdb.github.io/django-peeringdb/
Python Client

- `peeringdb-py` is a Python client for PeeringDB
- Gets objects and outputs in JSON or YAML format
- Provides a whois-like display of records
- Integrated local database sync
- Python library for integration with custom tools
- Available at [http://peeringdb.github.io/peeringdb-py/](http://peeringdb.github.io/peeringdb-py/)
- Examples at [https://github.com/grizz/pdb-examples](https://github.com/grizz/pdb-examples)
List All Peers at an IXP

```bash
% curl -s -X GET https://www.peeringdb.com/api/netixlan\?ixlan_id=62 | jq '.data[]'
{
  "id": 13312,
  "net_id": 2255,
  "ix_id": 62,
  "name": "CATNIX",
  "ixlan_id": 62,
  "notes": "",
  "speed": 1000,
  "asn": 16371,
  "ipaddr4": "193.242.98.9",
  "ipaddr6": null,
  "is_rs_peer": false,
  "created": "2013-02-08T00:00:00Z",
  "updated": "2016-03-14T21:31:39Z",
  "status": "ok"
}
```
OAuth Authentication – New in 2.7.1

• PeeringDB users are often connected to multiple IXPs and meet at the same events
  • OAuth2 defined in RFC 6749 is a third-party authentication framework that lets PeeringDB be an OAuth server
  • Register your application, so people can use their PeeringDB account to login instead of requiring them to register in your application

• Full user control, each PeeringDB user must permit each application to use OAuth

• More details are available here: https://docs.peeringdb.com/oauth/

6 May 2021
Teraco Virtual Tech Day