



**PeeringDB**

# **PeeringDB Operations & Product Update**

Matt Griswold  
grizz@peeringdb.com

# What is PeeringDB?

**PeeringDB** is a freely available, user-maintained, **database of networks and carriers**, and the go-to location for interconnection data. It facilitates the global interconnection of networks at **IXPs, data centers, and other interconnection facilities**. It is the first stop in making interconnection decisions.



# Governance and membership

- PeeringDB is a US non-profit volunteer organization funded by sponsorships
- You can be – or are – a member!
  - If you are a legal business entity
  - If you have an active PeeringDB account
  - If you have someone subscribed to our Governance mailing list
  - 374 addresses subscribed to the Governance mailing list (as of March 06, 2023)
  - **Next AGM is on April 13, 2023**
  - Governance list is at <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov>
  - More information available at <http://gov.peeringdb.com/>

# We are looking for volunteers

- For Admin Committee
  - who speak languages other than English
- For Outreach Committee
  - Folks with marketing experience are highly welcome
- For Operations Committee
  - Small and highly trusted
  - Experience with containers is a plus
- **Apply to [stewards@lists.peeringdb.com](mailto:stewards@lists.peeringdb.com)**

# Recent volunteer contributions

- Security changes from Amazon
- UX changes from Google
- Various other changes from individuals

## HOWTO: Get Started with Developing for PeeringDB

### Technology

We use Python with Django and MySQL. Django manages interaction with the database. We publish all our code on GitHub. We have documented how to set up our development environment.

### What to develop

PeeringDB users can request features and report bugs by creating issues on GitHub. Review open issues to either find a project you'd like to work on, or to see if there's an existing issue for the feature you want.

If you want to develop a feature that has not been discussed on GitHub, you should either create an issue or contact us to discuss what you need. You can send a message to [productcom@lists.peeringdb.com](mailto:productcom@lists.peeringdb.com) or contact any of the members of the Product Committee.

If you want to develop code for an issue that has achieved consensus on GitHub, we suggest starting with issues labeled as Good first issue. These are simple issues that will help you get a feel for PeeringDB.

### Style

Before you start developing code look at how similar functions have been implemented. Use the same design as existing functions and develop unit tests for your code. We aim for 80% unit test coverage. You also need to run black on your code before submitting a Pull Request. We use black to ensure that all of our code has the same formatting. Reusing designs, developing unit tests, and using consistent formatting makes it easier for us to maintain the code over time.

We keep the feature parity between the web interface and the API. A feature added to one needs to be added to the other. The implementation details documented in issues should be detailed enough to use as documentation for the web interface.

Documentation is also needed for the API. The minimum we need for API documentation is an example of how to format the request and a pointer to the document section to update.

# 2022 product improvements

- Better support tools
- Better IX-F Export handling
- Networks peering with Route Servers now more visible
- Organizational policy features allow to require your users to:
  - Enable MFA
  - Use a specific email domain
  - Periodically revalidate their accounts
- And users can associate multiple addresses with an account

Peers at this Exchange Point

Peer Name ↓ IPv4	ASN IPv6	Speed	Policy
<u>Akamai Technologies</u> 195.66.246.28	20940 2001:7f8:4:3::51cc:1	20G	❄️ Open
<u>BBC</u> 195.66.246.25	2818 2001:7f8:4:3::b02:1	10G	Open
<u>BORDERLINK</u> 195.66.246.200	205847 2001:7f8:4:3:0:3:2417:1	10G	Open
<u>BORDERLINK</u> 195.66.246.60	205847 2001:7f8:4:3:0:3:2417:2	10G	Open
<u>Brightsolid</u> 195.66.246.5	5564 2001:7f8:4:3::15bc:1	1G	Open
<u>Broadband for the Rural North (B4RN)</u> 2001:7f8:4:3::e3a1:1	58273 195.66.246.26	10G	❄️ Open
<u>BSO</u> 195.66.246.9	4455 2001:7f8:4:3::1167:1	1G	❄️ Open
<u>Capita Networking Solutions (Updata)</u> 2001:7f8:4:3::c95f:1	51551 195.66.246.4	1G	Open
<u>Chess</u> 195.66.246.14	5500	1G	Open
<u>CityFibre</u> 195.66.246.11	8468 2001:7f8:4:3::2114:1	10G	❄️ Selective
<u>Cloudflare</u> 195.66.246.27	13335 2001:7f8:4:3::3417:1	10G	Open



# Searching

- Improvement from NANOG 83 Hackathon (2.33.0)
- Searching for numbers return the most relevant results
- Searching for a short ASN returns just that ASN
- Searching for two segments of an IP address return related ix and netixlan objects
- HOWTO: <https://docs.peeringdb.com/howto/search/>

# Searching – facilities

- The address is mapped to coordinates
  - Search a radius from any location
  - Filter searches on criteria
  - Export as JSON or CSV
- Additional information
  - Property Ownership
  - Redundancy
  - Power Provided

www.peeringdb.com/advanced\_search

Exchanges Networks **Facilities** Organizations

Name

Address

City/ State/ Postal

Country (ctrl/cmd click to select multiple)  
Antarctica  
Antigua and Barbuda  
Argentina  
Armenia  
Aruba  
Australia

Continental Region (ctrl/cmd click to select multiple)  
North America  
Asia Pacific  
Europe  
South America  
Africa  
Australia

Within Distance  km

Management

CLLI

NPA-NXX

Property

Diverse Serving Substations

Available Voltage Services  
48 VDC  
120 VAC  
208 VAC  
240 VAC  
480 VAC

Network Presence

My organization presence (ctrl/cmd click to select multiple)

Name ↓ Management	CLLI NPA-NXX	City Country	State Postal Code	Networks
AAPT Brisbane AAPT (TNZA)	-	Brisbane AU	QL 4000	1
Christie Systems DC1 Christie Systems Services	-	Brisbane AU	Queensland 4000	1
NEXTDC B1 NEXTDC	-	Brisbane AU	QL -	78
Over the Wire - 24 Little Edward Over The Wire Pty Ltd	-	Spring Hill AU	QLD 4200	0
PIPE Networks Brisbane PIPE Networks	-	BRISBANE AU	QL 4000	13
Rail Centre 1 QR - Rail Centre 1	-	Brisbane AU	QL 4000	0



# Documentation updates

- Started series of HOWTOs
  - <https://docs.peeringdb.com/howtos/>
- Regular blogs on new features
  - <https://docs.peeringdb.com/blogs/>
- Announced on social media
- See also our [2022 Product Report](#)

## Create entries

- Get Started with PeeringDB as a Exchange Operator
- Get Started with PeeringDB as a Facility Operator
- Get Started with PeeringDB as a Network Operator

## Manage entries

- Manage Organizational Policy
- Manage User Permissions

## Search

- Get Started with Search in PeeringDB
- Work Within PeeringDB's Query Limits

## Authentication and security

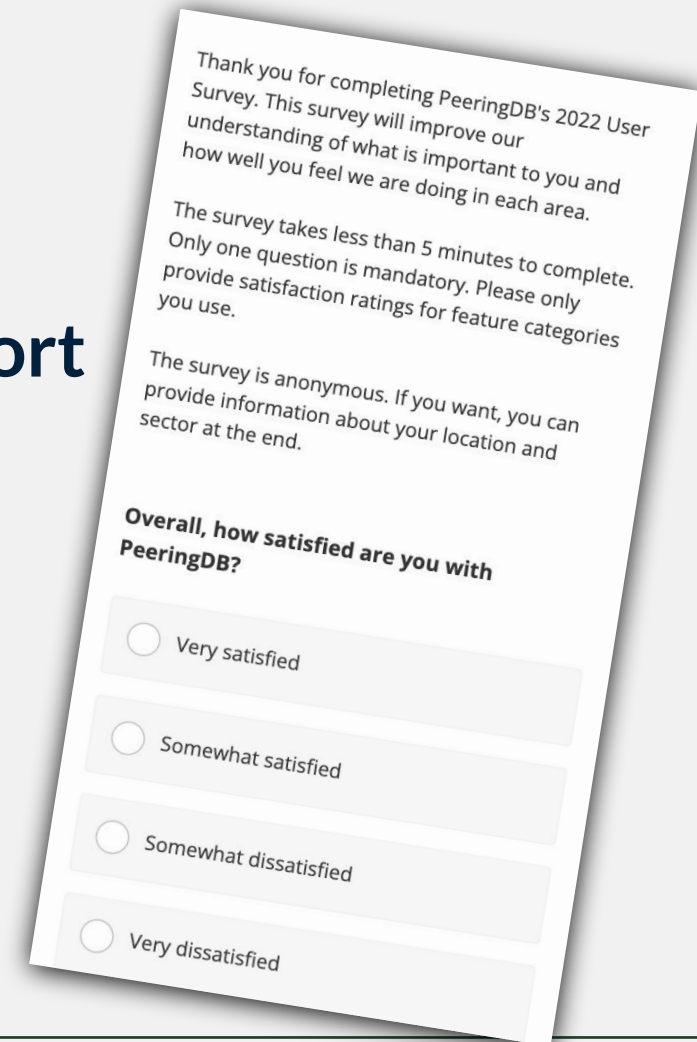
- Authenticate to PeeringDB
- Get Started with API Keys
- Report a Security Issue

## Other

- Get Started with Developing for PeeringDB
- Setup a PeeringDB Development Environment
- What is AS112?

# 2022 product report

- Our 2022 user survey was run in October
- 6 UN languages, Portuguese & Ukrainian
- Our product report tied feedback with features  
[https://docs.peeringdb.com/blog/2022\\_product\\_report](https://docs.peeringdb.com/blog/2022_product_report)



# New “carrier” object

- New pillar of data besides net|work, fac|ility and ix
- A “Carrier” provides high capacity L1/L2 links between facilities.
- API: carrier and carrierfac
- A carrier presence in a facility must be approved by a facility admin

# New “carrier” object

- Add a carrier object via your organization “Manage” section
- Add a presence via the carrier object
- Introduced in 2.43.0
- See also the [blog](#) about the carrier object

Arvig Enterprises Inc.

Also Known As	
Long Name	
Website	<a href="https://www.arvig.com/">https://www.arvig.com/</a>
Address 1	150 2nd Street SW
Address 2	
Floor	
Suite	
Location	Perham, MN, 56573
Country Code	US
Geocode	<i>Geocode data for this entity could not be obtained at this point. This is done automatically upon address field changes.</i>
Last Updated	2019-07-08T18:35:40Z
Notes ?	
Logo ?	

Edit

Facilities

Filter

Name ↓	Country	City
--------	---------	------

No filter matches.  
You may filter by **Name**, **Country** or **City**.

Networks

Filter

Name ↓	ASN
--------	-----

Arvig	16904
-------	-------

Exchanges

Filter

Name ↓	Country	City
--------	---------	------

No filter matches.  
You may filter by **Name**, **Country** or **City**.

Carriers

Filter

Name ↓
--------

Arvig
-------

Campuses

Filter

Name ↓
--------

No filter matches.  
You may filter by **Name**.

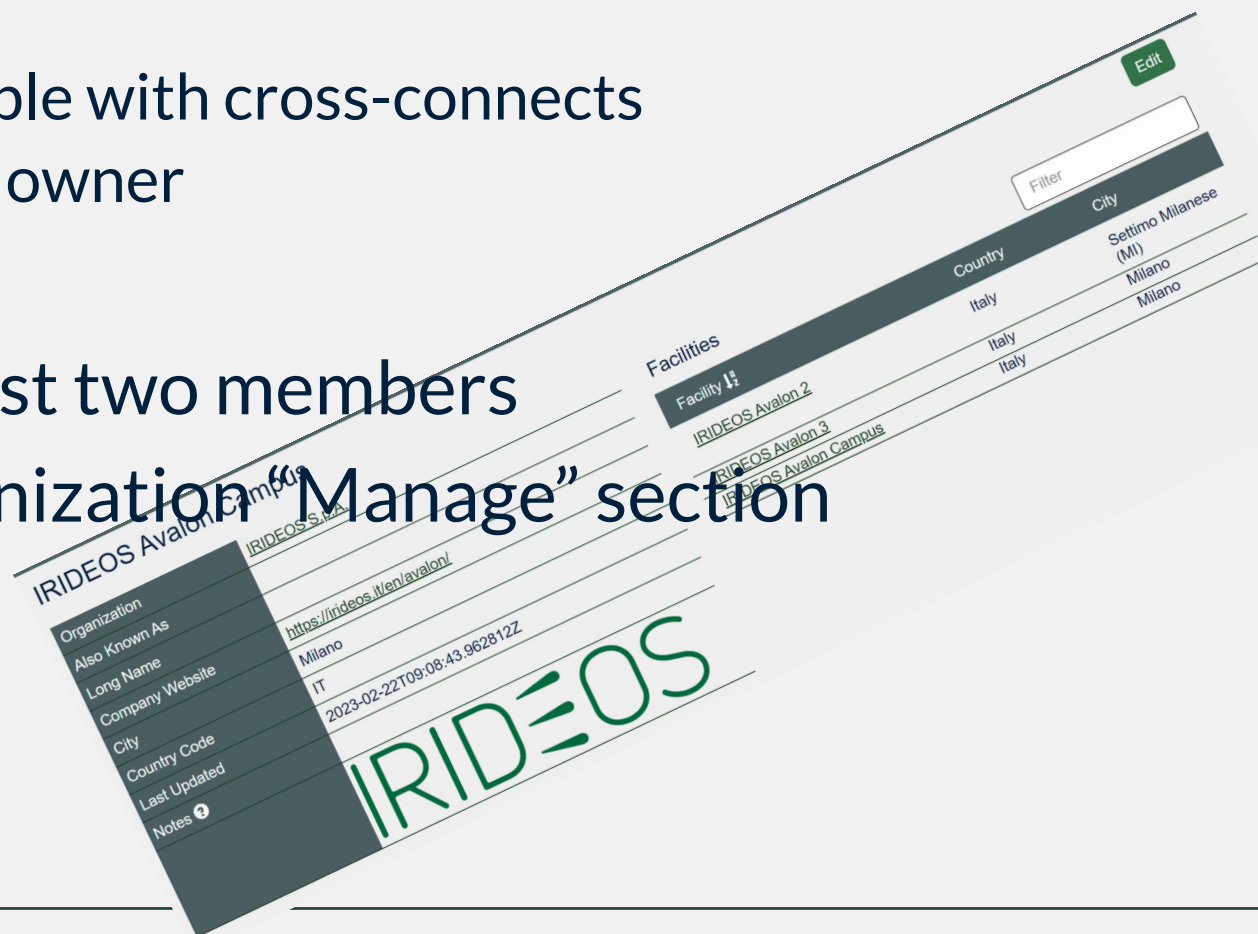
# New “campus” object

- The campus object allows facilities to be grouped
  - Not well defined in terms of size
  - All facilities should be interconnectable with cross-connects
  - All facilities must belong to the same owner

- API: campus

- A campus is only shown with at least two members

- Add a campus object via your organization “Manage” section



# What's ahead?

- Regular updates with [small features and bug fixes](#), carrier and campus object already implemented
- Improve searching, both for GUI and API
- Finalize tasks from [Data Ownership Task Force](#)
  - Automatically remove stale connections to an IX
- Automate Networks, IXPs, Facilities, and Carriers according to the latest [Guidelines and Criteria](#)
- Published release schedule on the Release Notes page

Release number	Internal testing	Beta release	Production release
2.44.0	2023-02-01	2023-02-15	2023-02-22
2.45.0	2023-03-08	2023-03-15	2023-03-22
2.46.0	2023-04-05	2023-04-12	2023-04-19
2.47.0	2023-05-10	2023-05-17	2023-05-25
2.48.0	2023-06-XX	2023-06-YY	2023-06-ZZ



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**PeeringDB**

# Questions?

Need help? Contact [support@peeringdb.com](mailto:support@peeringdb.com)

Got a feature idea? Contact [productcom@lists.peeringdb.com](mailto:productcom@lists.peeringdb.com)