PeeringDB

PeeringDB Operations & Product Update

Arnold Nipper
arnold@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 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
  - 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/

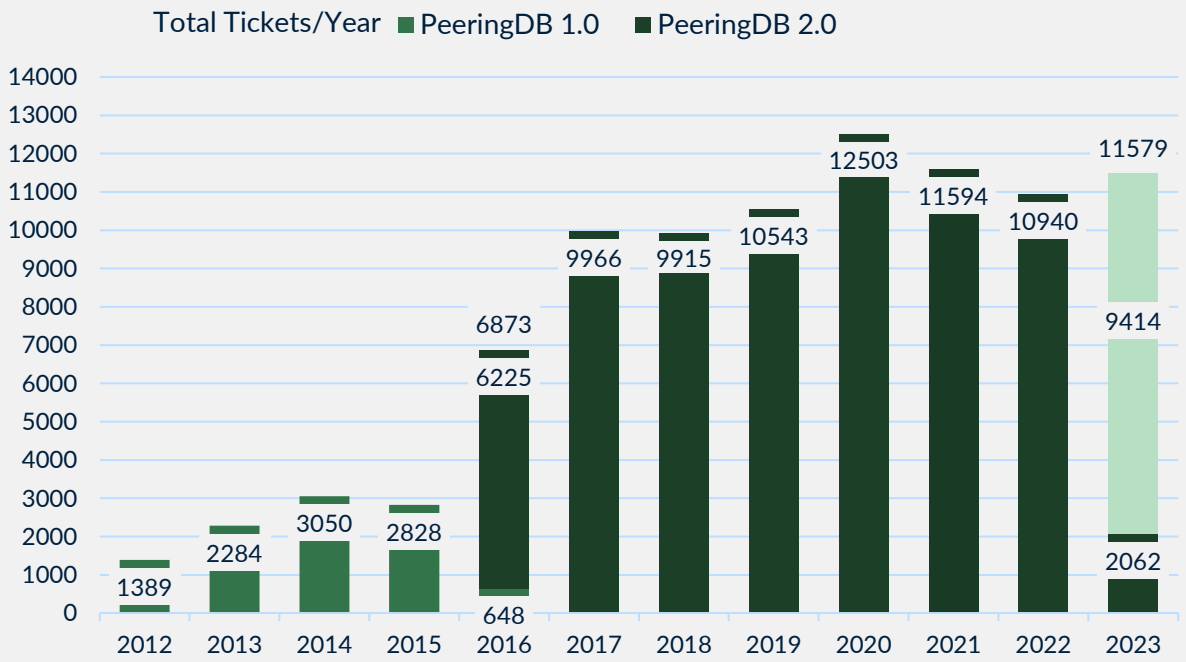
Committees

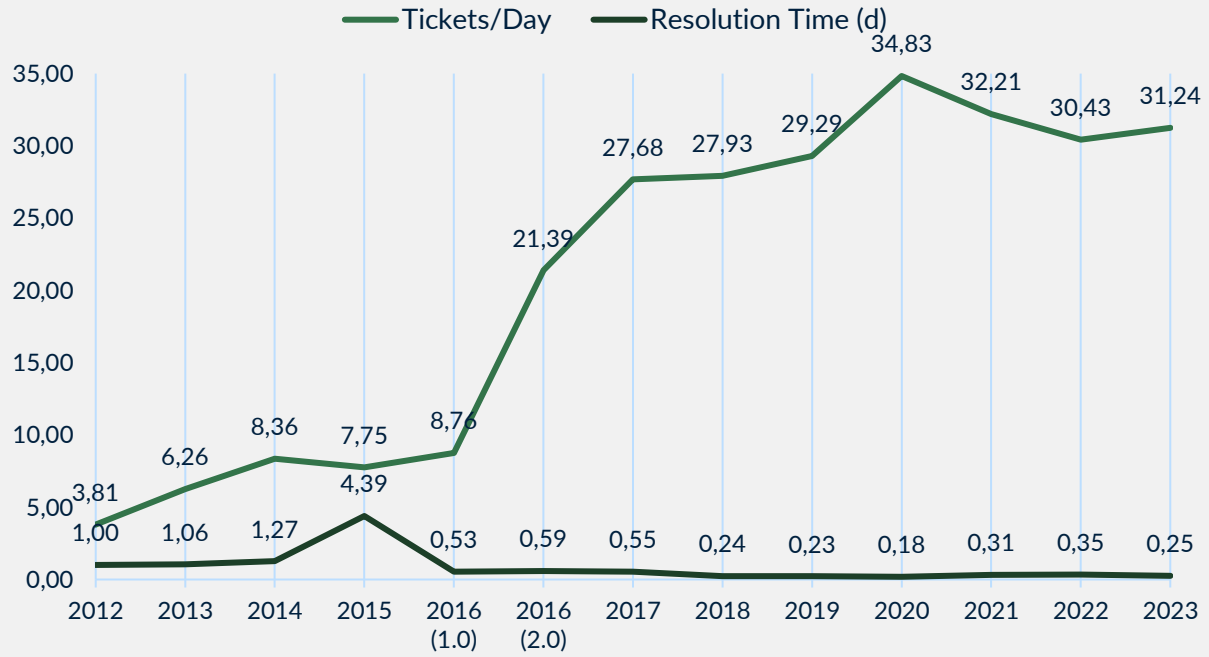
Admin Committee	Operations Committee	Outreach Committee	Product Committee
• Manage administration of user accounts and PeeringDB records • Answer support tickets • Cleansing and completion of PeeringDB records	• Manage PeeringDB infrastructure	• Manage marketing and social media • Develop and maintain 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: Patrick Gilmore (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

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**

Support Ticket Statistics

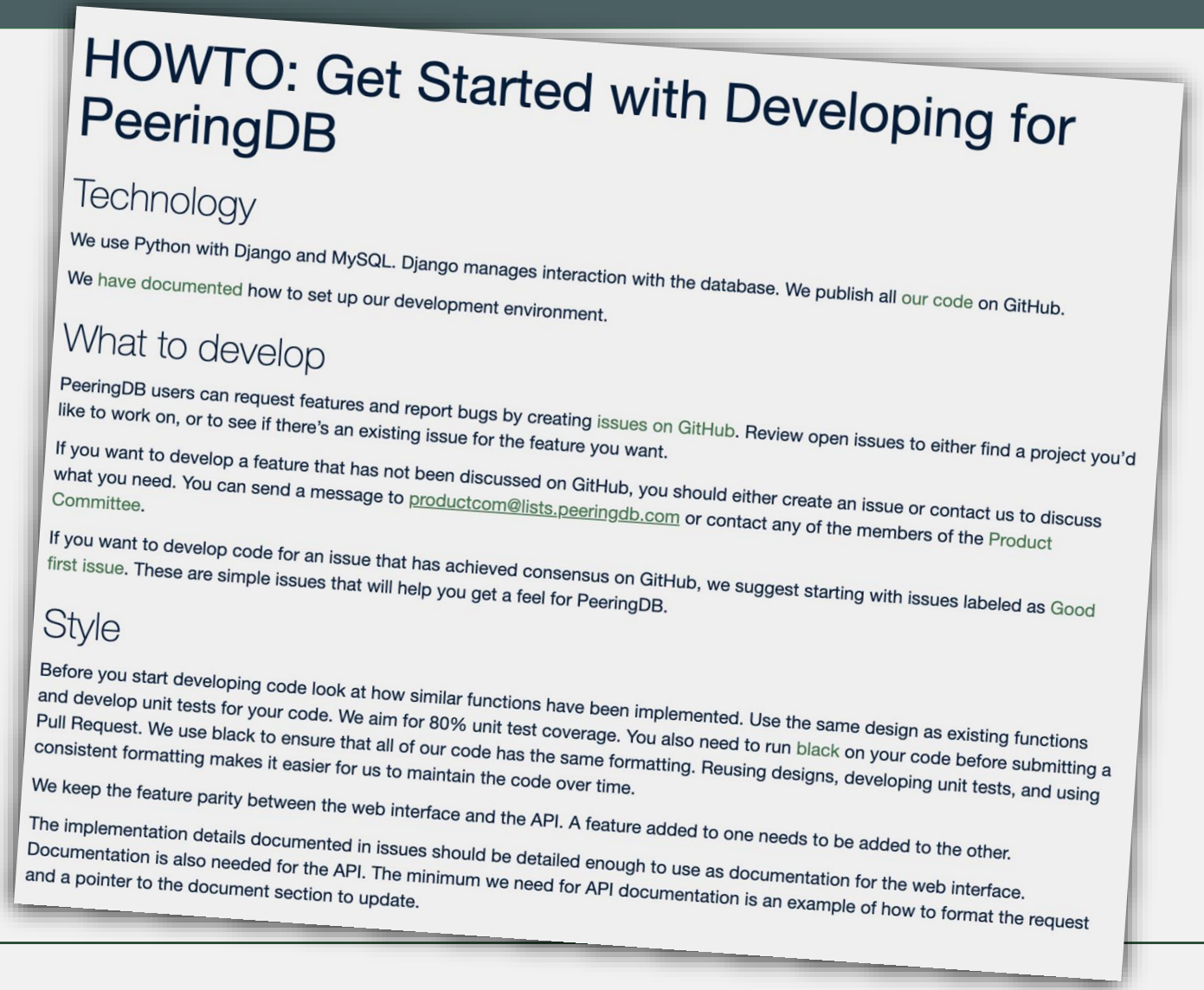




- Admin Committee volunteers are based around the world in a variety of time zones with diverse language skills
- Goal is to resolve support tickets within 24 hours

Recent Volunteer Contributions

- Focus on 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 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

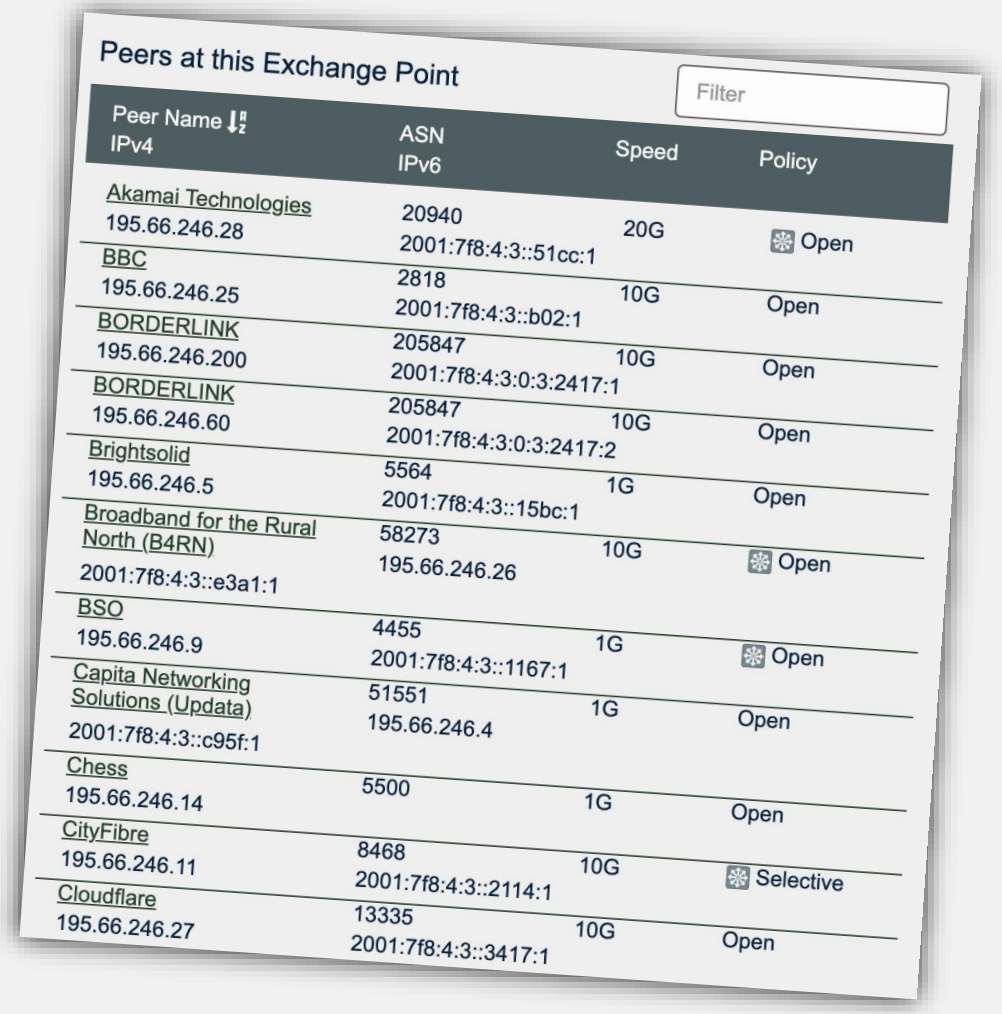
Before you start developing code look at how similar functions have been implemented. Use the same design as existing functions and develop unit tests for your code. We aim for 80% unit test coverage. You also need to run black on your code before submitting a Pull Request. We use black to ensure that 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.

Recent 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

Filter

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

General Updates

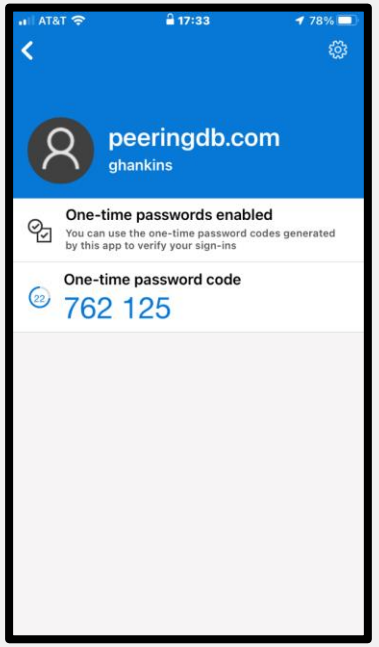
- https://www.peeringdb.com is enforced (2.35.0)
- Please check your scripts (e.g. –L for curl)
- Enables better delivery via CDNs
- Lots of bug fixes and small features
  - Users especially like the logo feature
  - Various counters for fac, ix and net objects
  - Updated fields allow for easy tracking of changes
    - netixlan_updated
    - netfac_updated
    - poc_updated

Authentication Changes

- API keys (2.26.0)
  - 256-bit random number, base-62 encoded
  - On org level (additional tabs)
    - Needs an email associated with it (ideally role-account)
    - Can be created by any Admin
    - Same granular (CRUD) permissions as users
  - On user level
  - HOWTO: https://docs.peeringdb.com/howto/api_keys/
- Substantially rate-limit unauthenticated API queries (2.34.0)
  - Wild running scripts
  - Bad code
  - See tech-list for details
  - HOWTO: https://docs.peeringdb.com/howto/work_within_peeringdbs_query_limits/

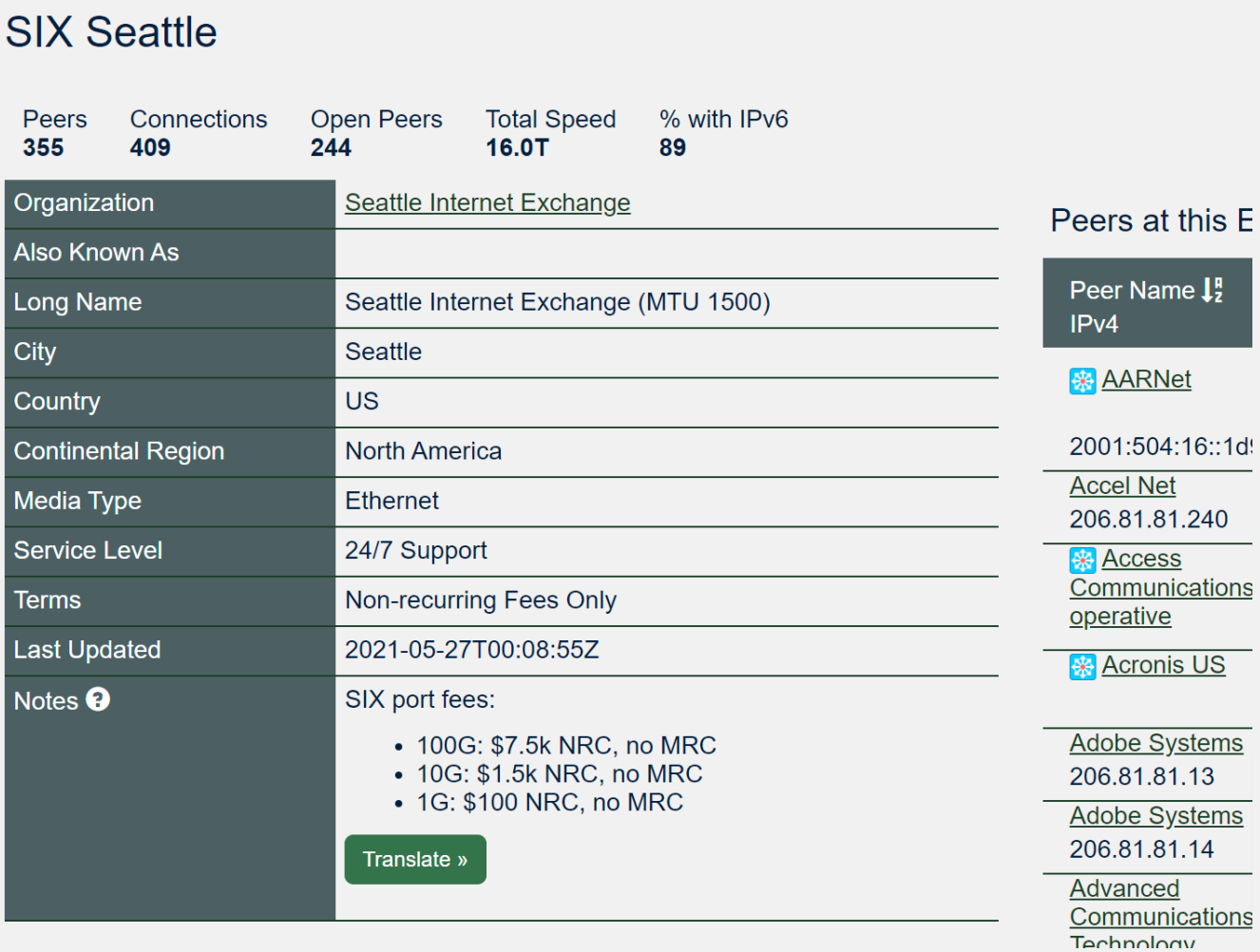
Account Security

- Two-factor authentication (2FA) (2.21.0)
  - Using time-based one-time password (TOTP) - no SMS, no email
  - Setup via User Profile
  - Highly recommended
  - Provision for backup codes and recovery tokens
- Fast IDentity Online (FIDO) Universal 2nd Factor (U2F) 2FA support (2.33.0)
  - Allowing users to enable 2FA without relying on a TOTP app
- HOWTO: https://docs.peeringdb.com/howto/authenticate/



Self-Selection Fields – Exchanges (2.27.0)

- Service Level
  - Best Effort (no SLA)
  - Normal Business Hours
  - 24/7 Support
  - Not Disclosed (default)
- Terms
  - No Commercial Terms
  - Bundled with other Services
  - NRC only
  - Recurring Fees
  - Not Disclosed (default)



SIX Seattle

Peers	Connections	Open Peers	Total Speed	% with IPv6
355	**409**	**244**	**16.0T**	**89**

Organization	Seattle Internet Exchange
Also Known As	
Long Name	Seattle Internet Exchange (MTU 1500)
City	Seattle
Country	US
Continental Region	North America
Media Type	Ethernet
Service Level	24/7 Support
Terms	Non-recurring Fees Only
Last Updated	2021-05-27T00:08:55Z
Notes	SIX port fees: • 100G: $7.5k NRC, no MRC • 10G: $1.5k NRC, no MRC • 1G: $100 NRC, no MRC Translate »

Peers at this E

Peer Name IPv4
AARNet
2001:504:16::1d
Accel Net 206.81.81.240
Access Communications operative
Acronis US
Adobe Systems 206.81.81.13
Adobe Systems 206.81.81.14
Advanced Communications Technology

Self-Selection Fields – Facilities (2.30.0)

- Property
  - Lessee
  - Owner
  - Not Disclosed (default)
- Diverse Serving Substations
  - Yes
  - No
  - Not Disclosed (default)
- Available Voltage Services
  - 48 VDC
  - 120 VAC
  - 208 VAC
  - 240 VAC
  - 480 VAC

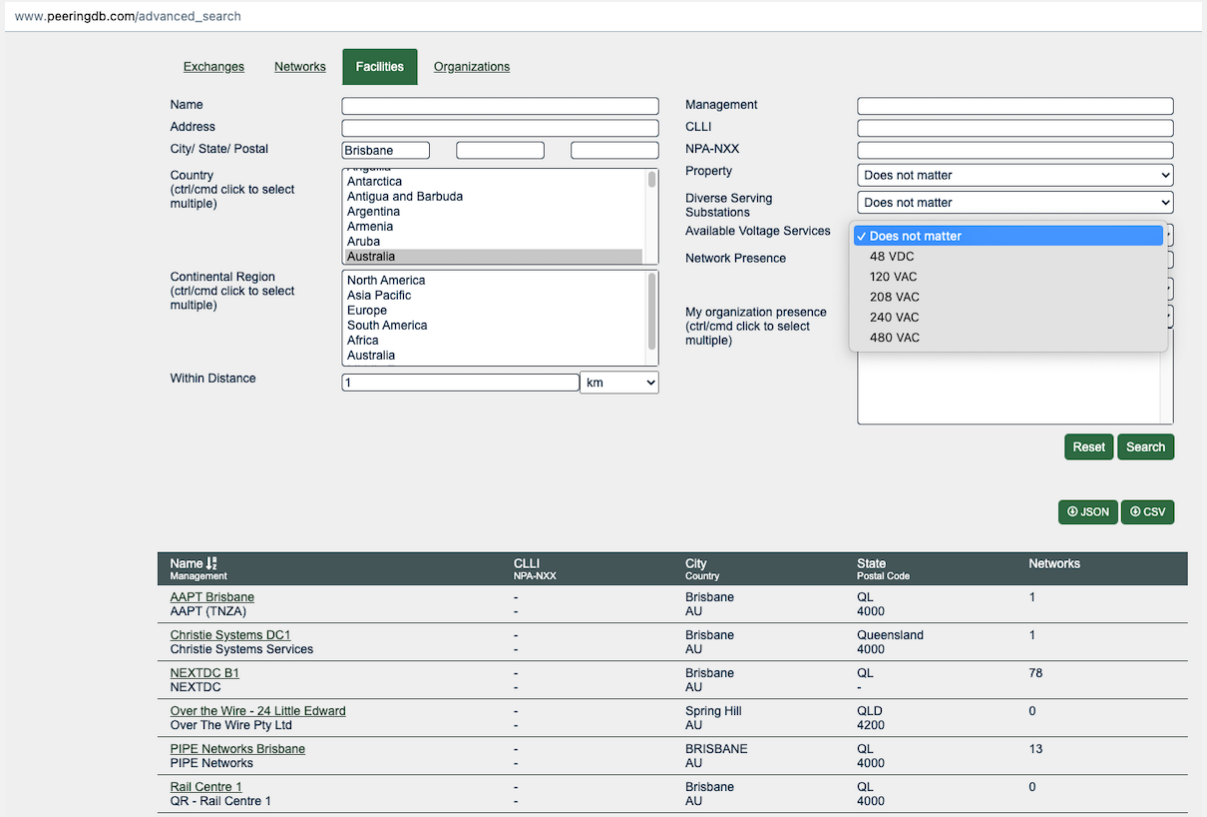
NPA-NXX	
Last Updated	2022-04-20T20:03:43Z
Notes	
	AUBix
Technical Email	support@aubix.net
Technical Phone	
Sales Email	sales@aubix.net
Sales Phone	
Property	Owner
Diverse Serving Substations	Yes
Available Voltage Services	208 VAC
Health Check	

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/

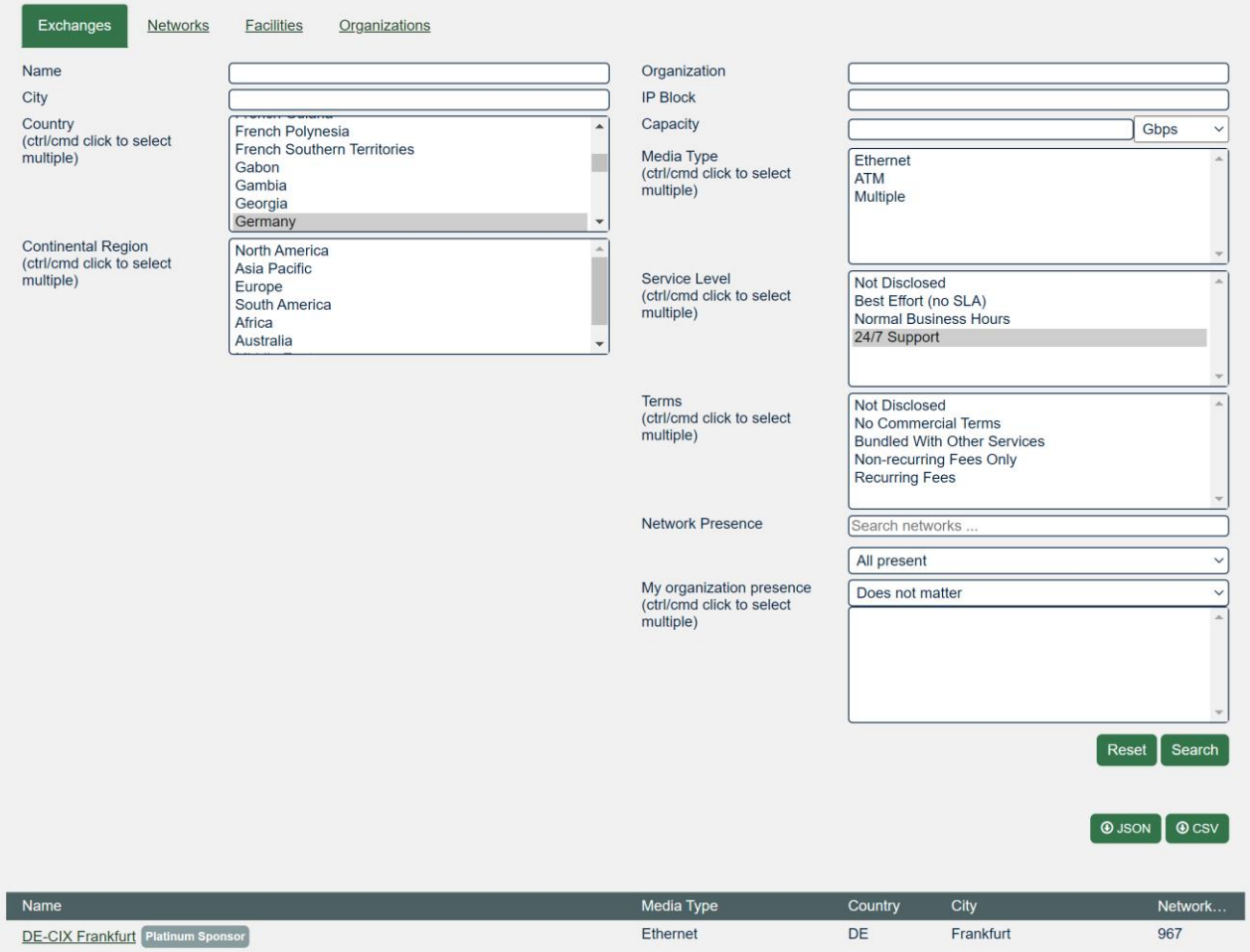
Searching – Facilities

- 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



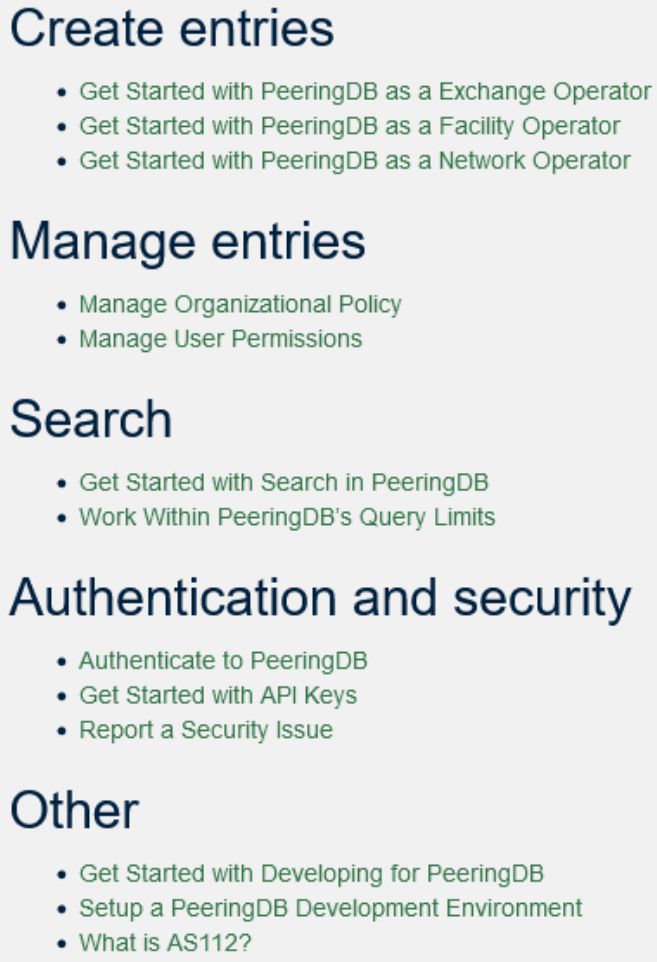
Searching – Exchanges

- Filter searches on criteria
- Export as JSON or CSV
- Additional information
  - Service Level
  - Terms
  - Network Presence



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

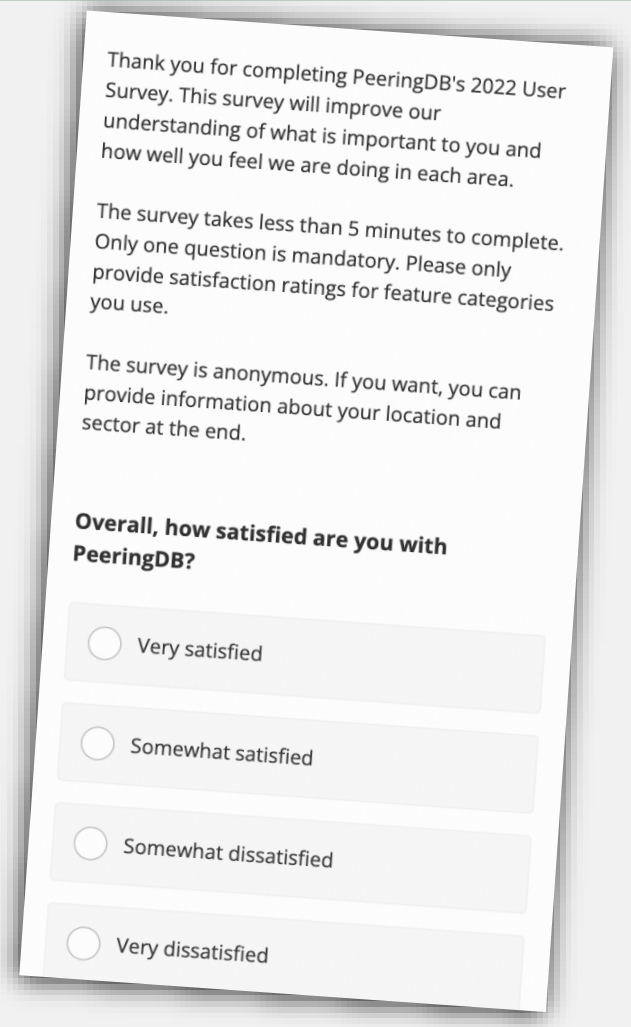
- Authenticate to PeeringDB
- Get Started with API Keys
- Report a Security Issue

Other

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

2022 User Survey

- Our 2022 user survey was done in October
- Available in 6 UN languages, Portuguese & Ukrainian
- Blog is here (https://t1p.de/8bnvn)

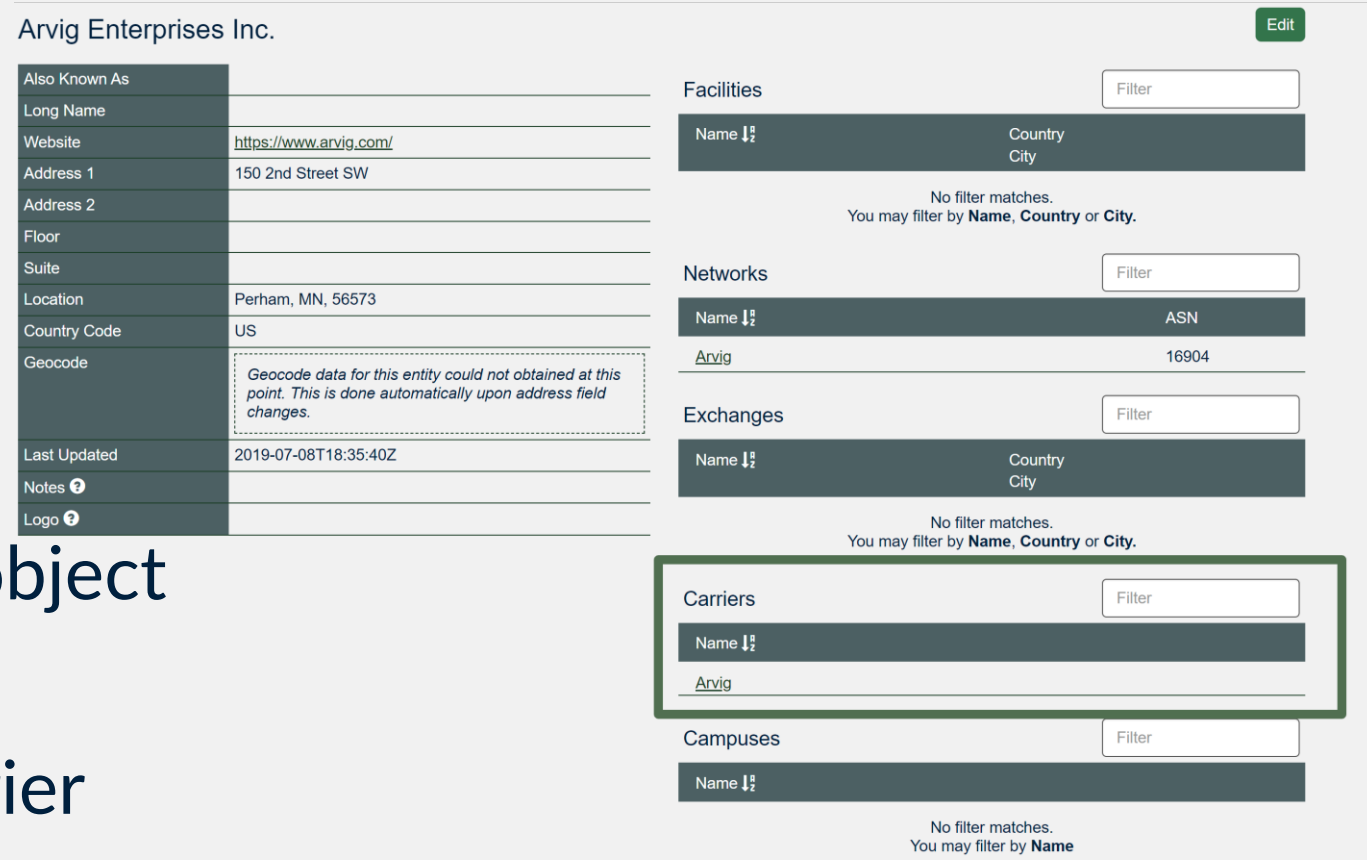


New Object “Carrier”

- 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 Object “Carrier”

- 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



New Object “Campus”

- The campus object allows to structure two or more facilities
  - Not well defined in terms of size
  - All facilities should be interconnectable with “cheap” interconnections
  - 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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Questions?

Need help? Contact support@peeringdb.com

Got a feature idea? Contact productcom@lists.peeringdb.com