

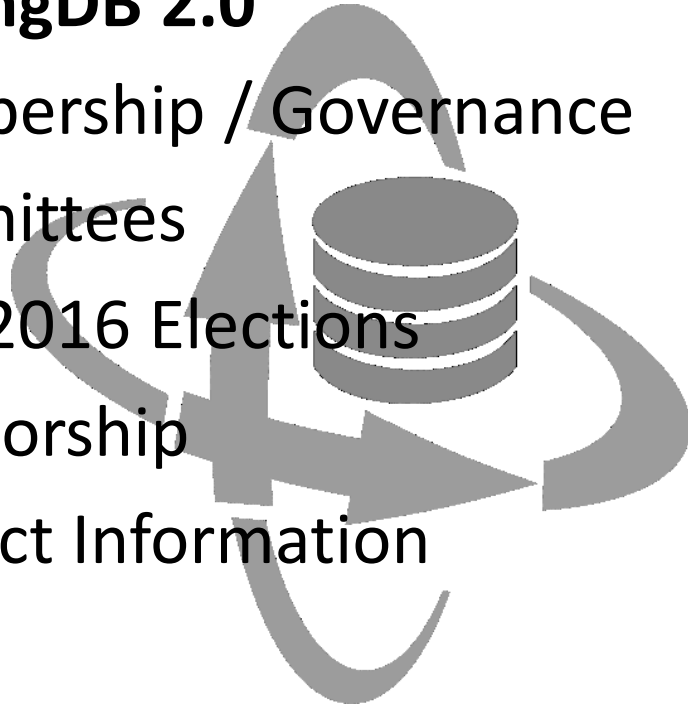


PeeringDB Update

Arnold Nipper
arnold@nipper.de

Agenda

- **PeeringDB 2.0**
- Membership / Governance
- Committees
- April 2016 Elections
- Sponsorship
- Contact Information



PeeringDB

What is PeeringDB?

- PeeringDB is the database of peering information on the Internet
- Contains peering location and contact information for
 - Networks
 - Exchanges
 - Facilities
- A PeeringDB record makes it easy for people to find you, and helps you to establish peering
- If you aren't registered in PeeringDB, you can register at <https://www.peeringdb.com/register>
- We use basic verification for new accounts and require current whois information
 - Please update your whois information
 - Please register from a company email address

PeeringDB 2.0

- PeeringDB 2.0 launched 15 March, 2016
 - Backend database (1.0) discontinued simultaneously
 - Last legacy SQL dump for public consumption:
<https://peeringdb.com/v1/dbexport/peeringdb.sql>
 - Investigating 404s for old SQL to contact users
 - Questions to
 - support@peeringdb.com for registration / use
 - pdb-tech@lists.peeringdb.com for discussion of the back end
- Challenges during the launch
 - Very minor bug fixes required, but overall a success!
 - Lots of support tickets
 - 2.0.9 current release
 - 20C (developer contractor) very responsive to community - thanks!

Key New Infrastructure Features



- Complete rewrite in Python
 - Fast and clean, widely used and supported
 - Support for a multideveloper environment
- Redesigned schema with data validation
 - All data is permissioned and editable
 - Input validation on fields: IP addresses, email addresses, etc.
 - Validation in PeeringDB record: dropdown box to select ASN at exchange
- Data versioning
 - Revision history for every data change
 - Easy to restore and roll back
 - Historical data import from CAIDA going back to 2010 (not available yet)
- RESTful API
 - Stateless
 - Incremental database syncs
 - With documentation and tools, oh my!

Key New User Features

- Facilities and exchanges can now update their own info
 - Networks are still required to associate their record at a facility or exchange
- Multiple records of any type can be associated with an organization
 - Simpler organization management with a single account for network, facility, exchange records
- One account can manage multiple organization
 - Manage all of the things with a single account
- Users can manage their accounts
 - Admin account for an organization can delegate fine-grained permissions
- Contact info has permissions
 - Private/users/public permissions
 - All users must register, no more guest account
 - Public view can see all info except contact info (no login needed)
- APIs and local database sync
 - Sync PeeringDB to a local database in any engine format

PeeringDB

Multiple Records Under a Single Organization

 **PeeringDB** [Advanced Search](#) [ghankins](#) 

Amsterdam Internet Exchange BV silver Edit

Website	http://www.ams-ix.net/
Address 1	
Address 2	
Location	Amsterdam
Country Code	NL

Facilities Filter

Name ▼	Country City
Nothing matched your filter You may filter by Name, Country or City	

Networks Filter

Name ▼	ASN
AMS-IX Route Servers	6777
AMS-IX Route Servers USA	62972
Amsterdam Internet Exchange BV	1200

Exchanges Filter

Name ▼	Country City
AMS-IX	Netherlands Amsterdam
AMS-IX BA	United States San Francisco, San Jose
AMS-IX Caribbean	Curaçao Curacao
AMS-IX Chicago	United States Chicago
AMS-IX Hong Kong	Hong Kong Hong Kong
AMS-IX NY	United States New York

Facilities are Shown Here
AMS-IX has no Facilities

Networks are Shown Here
AMS-IX has 3 Network Records

Exchanges are Shown Here
AMS-IX has 6 Exchange Records

One Account Managing Multiple Organizations

The screenshot shows the PeeringDB website interface. At the top, there is a search bar with the text "Search here for a network, IX, or facility." and a link to "Advanced Search". In the top right corner, the account name "job" is displayed next to a menu icon. The main content area features a form titled "Affiliate with Organization" with instructions: "To affiliate with an Organization, please enter a valid ASN or Organization name below." Below this are two input fields labeled "ASN" and "Organization", followed by an "Affiliate" button. Underneath the form is a section titled "Existing Affiliations" which lists four approved affiliations:

- Your affiliation with [NTT Communications \(Global\)](#) has been approved
- Your affiliation with [NLNOG RING](#) has been approved
- Your affiliation with [Netwerkvereniging Coloclue](#) has been approved
- Your affiliation with [Snijders IT](#) has been approved

A blue arrow originates from the "job" account name in the top right and points to the "Existing Affiliations" section, indicating that the account "job" is the one managing these affiliations.

**Account “job” is
Affiliated with 4
Organizations**

Request Ownership of an Existing Organization

- 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 to them

The screenshot shows the PeeringDB web interface. At the top, there's a search bar with the text "Search here for a network, IX, or facility." and a user profile "ghankins-example". Below the search bar, there's a link "Advanced Search" and a prominent blue button labeled "Request Ownership". A blue arrow points from the text "Click 'Request Ownership' Generates a Support Ticket for Validation and Approval" to this button. On the left, there's a table for "Example-IX" with fields: Organization (Example-IX), Long Name (Example-IX, the only ATM multicast IX on the planet!), City (Atlanta), Country (US), Continental Region (North America), Media Type (ATM), and Protocols Supported (Unicast IPv4, Multicast, IPv6). On the right, there's a section "Peers at this Exchange Point" with a "Filter" input and a table with headers "Peer Name", "ASN", "IPv4", "IPv6", "Speed", and "Policy". The table content shows "Nothing matched your filter" and a suggestion to filter by Exchange, ASN, Policy, or Speed.

PeeringDB

Search here for a network, IX, or facility.

ghankins-example

Advanced Search

Click "Request Ownership"

Generates a Support Ticket for Validation and Approval

Request Ownership

Organization	Example-IX
Long Name	Example-IX, the only ATM multicast IX on the planet!
City	Atlanta
Country	US
Continental Region	North America
Media Type	ATM
Protocols Supported	<input type="radio"/> Unicast IPv4 <input checked="" type="radio"/> Multicast <input type="radio"/> IPv6

Peers at this Exchange Point

Filter

Peer Name	ASN	IPv4	IPv6	Speed	Policy
Nothing matched your filter					
You may filter by Exchange, ASN, Policy or Speed					

Request Affiliation to an Organization

PeeringDB Search here for a network, IX, or facility. [Advanced Search](#)

1. Go to Your Profile [ghankins](#)

- [Nokia IP Labs](#)
- [Profile](#)**
- [Logout](#)

You have confirmed your email address!

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

Affiliate with Organization

To affiliate with an Organization, please enter a valid ASN or Organization name below.

ASN

Organization

Affiliate

Existing Affiliations

Your affiliation with [Nokia IP Labs](#) has been approved

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

4. Click "Affiliate"
Existing: Organization Admin Needs to Approve
New: Generates a Support Ticket for Validation and Approval

Organization User Management

The screenshot shows a web interface for managing users in an organization. At the top, there's a 'Manage' section with links for 'Add Facility', 'Add Network', 'Add Exchange', 'Users', and 'Permissions'. The 'Permissions' link is circled in blue. Below this, there's a section for 'Users requesting affiliation' which is also circled in blue. It contains a table with columns 'Name', 'Email', and 'Date', and a message stating 'Currently no users requesting affiliation with Nokia IP Labs'. Below that is the 'Users in Organization' section, which contains a table with columns 'Name', 'Email', and 'Group'. The table has one entry for 'Greg Hankins' with email 'greg.hankins@alcatel-lucent.com'. The 'Group' column has a dropdown menu with options 'admin', 'member', and 'admin'. The 'member' option is circled in blue. To the right of the table is a 'Remove' button, also circled in blue, and a 'Save' button below it. Annotations with arrows point to these elements: 'Approve or Deny Pending Requests' points to the 'Users requesting affiliation' section; 'Delegate Permissions for Members Admins Have Access to Everything' points to the 'Permissions' link; 'Change User Access Levels Admin – Administrator Member – Delegate Permissions' points to the group dropdown; and 'Remove Users From the Organization Does not Remove the User Account From PeeringDB' points to the 'Remove' button.

Approve or Deny Pending Requests

Delegate Permissions for Members
Admins Have Access to Everything

Users requesting affiliation

Name	Email	Date
User	Confirmed	

Currently no users requesting affiliation with Nokia IP Labs

Users in Organization

Name	Email	Group
Greg Hankins ghankins	greg.hankins@alcatel-lucent.com	admin member admin

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

User	Network - Equinix Netherlands	Network - Equinix UK	Network - Equinix Germany	Network - Equinix France	Network - Equinix Switzerland	Any Exchange	Any Facility
Paul Cairney <paul.cairney@eu.equinix.com> equinix-uk	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Raphael Ho <raphael.ho@ap.equinix.com> rho	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Create – New Entries in Record
Update – Change Existing Entries in Record
Delete – Delete Entries in Record

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

Network Record Contact Information Permissions

Contact Information

Role ▼	Name Visibility	Phone E-Mail
<input checked="" type="checkbox"/> NOC	Greg Hankins, Alastair	
	Users	as38016@alcatel-lucent.com
<input checked="" type="checkbox"/> Technical	Greg Hankins, Alastair	
	Users	as38016@alcatel-lucent.com

Role	Abuse
Name	
Email	name@example.com
Phone	
Visibility	Private

Private
Private
Users
Public

Separate Visibility Preferences for Each Role

Private – Organization Only (Default)

Users – Registered Users Only

Public – Anyone (no Login Required)

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

- org
- net
- ix
- fac

- List of objects: <https://peeringdb.com/apidocs/>

- API documentation: http://docs.peeringdb.com/api_specs/

The logo for PeeringDB, featuring a stylized database cylinder in the center, surrounded by four curved arrows forming a circular path. The text "PeeringDB" is written in a large, bold, sans-serif font to the right of the graphic.

PeeringDB

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`

```
{ "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
 - Redis: <https://github.com/netflix/peeringdb-py>
- Sync using the provided tools or build your own using the API

Django Library

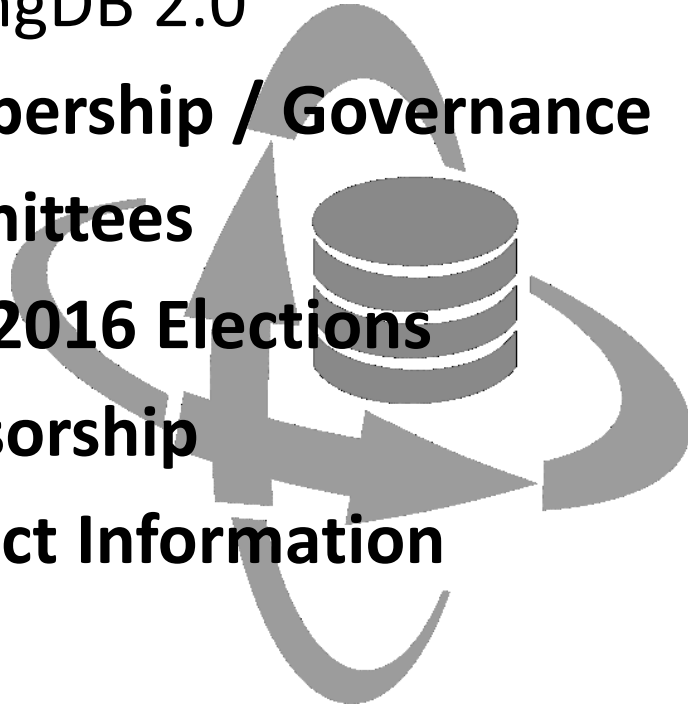
- django-peeringdb is a Django library with a local PeeringDB database sync
- Defines the database schema to create a local database copy
- Easy to integrate in a common framework for local tools and custom interfaces
- Supports multiple database engines (MySQL, Postgres, SQLite)
- Available at <http://peeringdb.github.io/django-peeringdb/>

Python Client

- peeringdb-py is a Python client for PeeringDB
- Gets objects and output in JSON or YAML format
- Provides a whois-like display of records
- Integrated local database sync
- Python library for integrate with custom tools
- Available at <http://peeringdb.github.io/peeringdb-py/>
- Examples at <https://github.com/grizz/pdb-examples>

Agenda

- PeeringDB 2.0
- **Membership / Governance**
- **Committees**
- **April 2016 Elections**
- **Sponsorship**
- **Contact Information**



PeeringDB

Membership / Governance

- PeeringDB organization formally formed 16 Dec, 2015
- PeeringDB 501(c)(6) filed 7 Jan, 2016 (approved 24 Feb, 2016)
- 5 Board meetings have been held
- 86 members registered and voted in the first election
- 288 addresses subscribed to the Governance mailing list (as of 6 Apr 2016)
- 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:
 - <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov>
 - More information available at <http://gov.peeringdb.com/>

Committees

- Admin Committee

- Will write charter (in progress)
- Will seek individuals from the community to serve on Admin Committee
- Will define roles, responsibilities and assist with schedule for Admin Committee
- Seeking 2 community volunteers (1 year term)
- Board members Job Snijders and Patrick Gilmore (Snijders as Chair)
- Interested in volunteering? Contact admincom@lists.peeringdb.com

- Product Development Committee

- Will write charter
- Will seek input from the community on desired features
- Will write SoW's to solicit bids to complete requested features
- Will manage priorities for selected development vendor(s)
- Seeking 4 community volunteers (1 year term)
- Board members Aaron Hughes and Matt Griswold (Hughes as Chair)
- Interested in volunteering? Contact productcom@lists.peeringdb.com

PeeringDB

Admin Committee

Big thanks to our awesome team of admins!



Greg Hankins



Matt Griswold



Arnold Nipper



Florian Hibler



Job Snijders (Chair)



Patrick Gilmore (Vice Chair)



Eduardo Ascenço Reis



Eric Lindsjö



Walt Wollny



Kate Gerry

Interested in volunteering your service as an admin? Contact admincom@lists.peeringdb.com

Product Development Committee

- A Product Development Committee is needed
 - Direct feature requests
 - Maintain the product roadmap
- Interested in volunteering? Contact productcom@lists.peeringdb.com
- Feature requests can be sent to support@peeringdb.com for tracking

PeeringDB

Become a PeeringDB Sponsor!

- **Diamond Sponsorship - \$25,000 / year**
 - Limited to 2 sponsors
 - Very large logo on top line of Sponsors page
 - Diamond Sponsor display on records
- **Platinum Sponsorship - \$10,000 / year**
 - Large logo on second line of Sponsors page
 - Platinum Sponsor display on records
- **Gold Sponsorship - \$5,000 / year**
 - Medium logo on third line of Sponsors page
 - Gold Sponsor logo display on records
- **Silver Sponsorship - \$2,500 / year**
 - Small logo on fourth line of Sponsors page
 - Silver Sponsor logo display on records
- Contact sponsorship@peeringdb.com for sponsorship info

The image shows a screenshot of the PeeringDB website interface. At the top, there is a search bar with the text 'Search here for a network, IX, or facility.' and a link for 'Advanced Search'. Below this, a record for 'DE-CIX Frankfurt' is displayed. A 'platinum' badge is circled in orange next to the record name. The record details are as follows:

Organization	DE-CIX Management GmbH
Long Name	DE-CIX, the global Internet Exchange
City	Frankfurt
Country	DE
Continental Region	Europe
Media Type	Ethernet
Protocols Supported	<input checked="" type="checkbox"/> Unicast IPv4 <input checked="" type="checkbox"/> Multicast <input checked="" type="checkbox"/> IPv6

Thank you to our initial sponsors!

Platinum
Sponsor



PeeringDB

Silver
Sponsors



Board Elections (April 2016)

- PeeringDB Board election in April 2016 (1 and 2 year terms)
- 5 seats up for election
- Current (initial) Board serves through April 2016
- Interested in more information about roles/responsibilities and time commitments?
 - Contact board@lists.peeringdb.com or <http://gov.peeringdb.com/>
- Through April 14th 23:59:59 UTC 2016: candidates may submit their candidacy and maximum 300 word statement, as determined by POSIX "LANG=en_US.UTF-8 wc -w" command, or revisions to their statement, to secretary@peeringdb.com
- April 15th 2016: ballots, with candidate statements, will be submitted to the PeeringDB Governance mailing list (pdb-gov@lists.peeringdb.com)
- Make sure to register until April 29th 00:00:00 UTC 2016 to be able to vote
- April 15th through April 29th 23:59:59 UTC 2016: voting

Board Elections (April 2016)

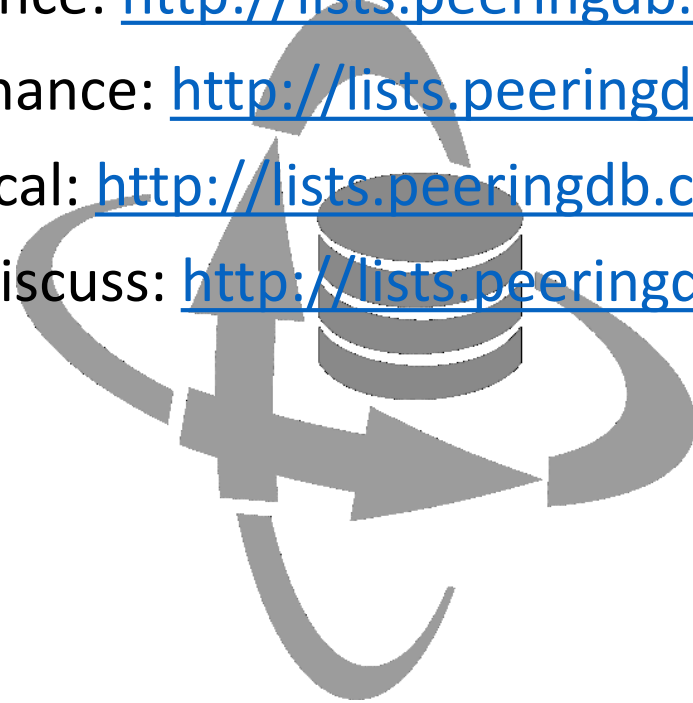
- Board candidates
 - Patrick W. Gilmore
 - Matt Griswold
 - Florian Hibler
 - Aaron Hughes
 - Arnold Nipper
 - Job Snijders



PeeringDB

Mailing Lists

- Announce: <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-announce>
- Governance: <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov>
- Technical: <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-tech>
- User Discuss: <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/user-discuss>



PeeringDB

Have questions?

- PeeringDB Officers & Board (stewards@lists.peeringdb.com)
 - Aaron Hughes – President, Director
 - Patrick Gilmore – Vice President, Director
 - Chris Caputo – Secretary & Treasurer (non-board member)
 - Matt Griswold – Director
 - Arnold Nipper – Director
 - Job Snijders – Director
- PeeringDB Admins (support@peeringdb.com)

The logo features a stylized database cylinder with three horizontal bands, surrounded by two curved arrows forming a circular motion.

PeeringDB

Thanks to Richard Turkbergen



The PeeringDB Board hereby expresses its enormous appreciation to Richard A. Turkbergen (née Steenbergen) for his creation and donation of PeeringDB to the organization.



Questions?