



# PeeringDB 2.0

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# Agenda

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

PeeringDB

# What is PeeringDB?

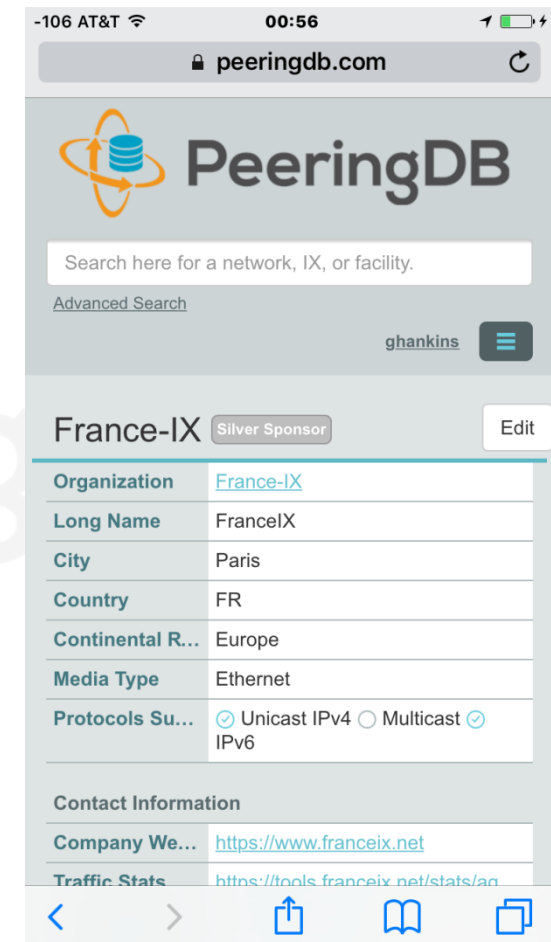
- PeeringDB is the database of peering information on the Internet
- Contains peering location and contact information for
  - Networks
  - Exchanges
  - Facilities
- A PeeringDB record makes it easy for people to find you, and helps you to establish peering
- If you aren't registered in PeeringDB, you 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](mailto:support@peeringdb.com)
- 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
  - Python: fast and clean, widely used and supported
  - HTML5: adaptive design for desktop and mobile
  - 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 organizations
  - 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

# Multiple Records Under a Single Organization

LINX Silver Sponsor

Website	<a href="https://www.linx.net">https://www.linx.net</a>
Address 1	The London Internet Exchange Ltd
Address 2	5th Floor, 24 Monument Street
Location	London, , EC3R 8AJ
Country Code	GB

## Facilities

Name ▼	Country	City
<a href="#">IXCardiff</a>	United Kingdom	Cardiff

## Networks

Name ▼	ASN
<a href="#">LINX Route Servers</a>	8714
<a href="#">London Internet Exchange (LINX)</a>	5459

## Exchanges

Name ▼	Country	City
<a href="#">IXCardiff</a>	United Kingdom	Cardiff
<a href="#">IXManchester</a>	United Kingdom	Manchester
<a href="#">IXScotland</a>	United Kingdom	Scotland
<a href="#">LINX Extreme LAN</a>	United Kingdom	London
<a href="#">LINX Juniper LAN</a>	United Kingdom	London
<a href="#">LINX NoVA</a>	United States	Northern Virginia

Exchanges are Shown Here  
LINX has 6 Exchange Records

Facilities are Shown Here  
LINX has 1 Facility

Networks are Shown Here  
LINX has 2 Network Records

# One Account Managing Multiple Organizations

PeeringDB

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

**job**

### 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 [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

**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

The screenshot shows the PeeringDB interface for an organization named 'Example-IX'. The page includes a search bar, a navigation menu, and a table of organization details. A blue arrow points to a 'Request Ownership' button in the top right corner of the organization's record. Below the organization details, there is a section for 'Peers at this Exchange Point' with a filter box and a message indicating that no peers matched the filter.

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	<a href="#">Example-IX</a>
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 <b>Exchange</b> , <b>ASN</b> , <b>Policy</b> or <b>Speed</b>		

# Register or Request Affiliation to an Existing Organization

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

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

**1. Go to Your Profile**

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

**You have confirmed your email address!**

**Affiliate with organization**

To affiliate with an existing organization, please enter the ASN or organization name below.

To register a new network organization, please enter the ASN and organization name below.

To register a new facility or exchange organization, please enter the organization name below (ASN is optional).

ASN

Organization

**Affiliate**

Existing affiliations

Your affiliation with [Nokia IP/Optical Networks Labs](#) has been approved.

ghankins

[Nokia IP/Optical Networks Labs](#)

[Profile](#)

[Logout](#)

# Organization User Management

**Manage**

[Add Facility](#) [Add Network](#) [Add Exchange](#) **Users** **Permissions**

**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/Optical Networks Labs

**Users in Organization**

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

**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

The screenshot displays two user profiles with their respective permissions. The first user, Paul Cairney (equinix-uk), has permissions for Network records (Netherlands, UK, Germany, France, Switzerland) but lacks permissions for Exchanges and Facilities. The second user, Raphael Ho (rho), has permissions for Network - Equinix Connect, Any Exchange, and Any Facility. The table below summarizes the permissions for each user.

User	Network	Exchange	Facility	Create	Update	Delete
Paul Cairney (equinix-uk)	Network - Equinix Netherlands Network - Equinix UK Network - Equinix Germany Network - Equinix France Network - Equinix Switzerland	Any Exchange		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Raphael Ho (rho)	Network - Equinix Connect Any Exchange Any Facility	Any Exchange		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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	Phone
<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
- Users
- Public

## Separate Visibility Preferences for Each Role

Private – Organization Only (Default)

Users – Registered Users Only

Public – Anyone (no Login Required)

### Roles:

Abuse

Policy

Technical

NOC

Public Relations

Sales

# 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/](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`

```
{ "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 integration 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
  - Will seek individuals from the community to serve on Admin Committee
  - Will define roles, responsibilities and assist with schedule for Admin Committee
  - Seeking 0 community volunteers (1 year term)
  - Board members Job Snijders and Patrick Gilmore (Snijders as Chair)
  - Interested in volunteering? Contact [admincom@lists.peeringdb.com](mailto: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](mailto:productcom@lists.peeringdb.com)

# Admin Committee

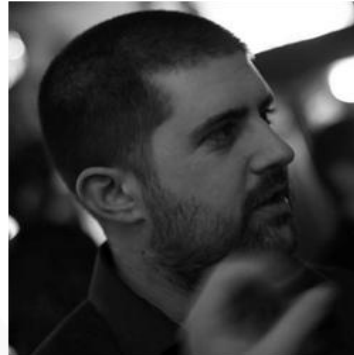
Big thanks to our awesome team of admins!



Kate Gerry



Patrick Gilmore (Vice Chair)



Matt Griswold



Greg Hankins



Florian Hibler



Eric Lindsjö



Arnold Nipper



Eduardo Ascenço Reis



Job Snijders (Chair)



Walt Wollny

# Product Development Committee

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

# Become a PeeringDB Sponsor!

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



Proud Sponsor of  
**PeeringDB**

DE-CIX Frankfurt	Platinum Sponsor
Organization	<a href="#">DE-CIX Management GmbH</a>
Long Name	Deutscher Commercial 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 sponsors!

Platinum  
Sponsor



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](mailto: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](mailto:secretary@peeringdb.com)
- April 15th 2016: ballots, with candidate statements, will be submitted to the PeeringDB Governance mailing list ([pdb-gov@lists.peeringdb.com](mailto:pdb-gov@lists.peeringdb.com))
- April 15th through 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 and Social Media

- 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](https://twitter.com/PeeringDB)



<https://www.facebook.com/peeringdb/>

# Have questions?

- PeeringDB Officers & Board ([stewards@lists.peeringdb.com](mailto: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](mailto:support@peeringdb.com))

# 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?