



PeeringDB Update

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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
- Challenges during the launch
 - Very minor bug fixes required, but overall a success!
 - Lots of support tickets
 - 2.0.7 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

Multiple Records Under a Single Organization

The screenshot shows the PeeringDB website interface for the organization "Amsterdam Internet Exchange BV". The top navigation bar includes a search bar, user account "ghankins", and a menu icon. The main content area displays four sections: Facilities, Networks, and Exchanges, each with a filter button.

Facilities: A table with columns "Name" and "Country/City". A message says "Nothing matched your filter You may filter by Name, Country or City".

Networks: A table with columns "Name" and "ASN". It lists three entries: "AMS-IX Route Servers" (ASN 6777), "AMS-IX Route Servers USA" (ASN 62972), and "Amsterdam Internet Exchange BV" (ASN 1200).

Exchanges: A table with columns "Name" and "Country/City". It lists six entries: "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), and "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 left is the PeeringDB logo. To its right is a search bar with the placeholder "Search here for a network, IX, or facility." Below the search bar is a link to "Advanced Search". In the top right corner, there is a user menu with two items: "job" (which is circled in blue with an arrow pointing to the explanatory text) and a menu icon (three horizontal lines). The main content area has a white background. It contains a section titled "Affiliate with Organization" with fields for "ASN" and "Organization", and a "Affiliate" button. Below this is a section titled "Existing Affiliations" which lists four organizations whose affiliations have been approved: NTT Communications (Global), NLNOG RING, Netwerkvereniging Colocue, and Snijders IT.

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 interface for an organization named "Example-IX". The top navigation bar includes a search bar, a user account dropdown ("ghankins-example"), and a menu icon. Below the header, there's a summary table with details like Long Name, City, Country, etc. To the right, there's a section titled "Click ‘Request Ownership’" which generates a support ticket for validation and approval. A blue arrow points to the "Request Ownership" button in this section. The bottom part of the screenshot shows a table for "Peers at this Exchange Point" with columns for Peer Name, ASN, IPv4, IPv6, and Speed Policy. A message indicates that no peers were found.

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

Click “Request Ownership”
Generates a Support Ticket for Validation and Approval

Request Ownership

Peers at this Exchange Point

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

Request Affiliation to an Organization

The screenshot shows the PeeringDB website interface. At the top left is the PeeringDB logo. A search bar at the top center contains the placeholder "Search here for a network, IX, or facility." Below it is a link to "Advanced Search". On the right side, there is a user profile menu with options: "ghankins", a gear icon, "Nokia IP Labs", "Profile" (which is circled in blue), and "Logout".

1. Go to Your Profile (blue arrow from "Profile" in the user menu)

2. Confirm Email Address (Click Here if not Confirmed) (blue arrow from the "You have confirmed your email address!" message)

3. Enter ASN or Organization Here (Autocomplete on Existing ASNs and Organizations in PeeringDB) (blue arrow from the "ASN" and "Organization" input fields)

4. Click "Affiliate" (Existing: Organization Admin Needs to Approve
New: Generates a Support Ticket for Validation and Approval) (blue arrow from the "Affiliate" button)

The main content area displays a "Affiliate with Organization" form. It includes fields for "ASN" and "Organization", both of which are circled in blue. Below these is a large blue button labeled "Affiliate". Underneath the form, a message states: "Existing Affiliations" and "Your affiliation with [Nokia IP Labs](#) has been approved".

Organization User Management

The screenshot shows the 'Manage' section of the interface. At the top, there are buttons for 'Add Facility', 'Add Network', 'Add Exchange', 'Users' (selected), and 'Permissions'. A blue arrow points from the text 'Approve or Deny Pending Requests' to the 'Users' button. Another blue arrow points from the text 'Delegate Permissions for Members' to the 'Permissions' button. A blue oval highlights the 'Users requesting affiliation' section, which contains columns for Name, Email, and Date. A message below states 'Currently no users requesting affiliation with Nokia IP Labs'. A blue arrow points from the text 'Change User Access Levels' to this section. Below it is a table for 'Users in Organization' with columns for Name, Email, and Group. It lists 'Greg Hankins' with email 'greg.hankins@alcatel-lucent.com' and group 'admin'. A blue oval highlights the 'Group' dropdown menu, which shows options 'admin', 'member', and 'admin' (selected). A blue arrow points from the text 'Member – Delegate Permissions' to this dropdown. To the right of the dropdown is a 'Remove' button, which is also highlighted with a blue oval. A blue arrow points from the text 'Remove Users From the Organization' to this button.

Name	Email	Date
User	Confirmed	

Currently no users requesting affiliation with Nokia IP Labs

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

Remove

Save

Approve or Deny Pending Requests
Admin – Administrator
Member – Delegate Permissions

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

The screenshot shows two user profiles with their respective permission levels:

User "equinix-uk" Permissions:

Record Type	Create	Update	Delete
Network - Equinix Netherlands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Network - Equinix UK	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Network - Equinix Germany	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Network - Equinix France	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Network - Equinix Switzerland	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Any Exchange	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

User "rho" Permissions:

Record Type	Create	Update	Delete
Network - Equinix Connect	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any Exchange	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any Facility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Any Exchange	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Annotations highlight the following:

- A large blue oval encloses the list of network records for "equinix-uk".
- Three arrows point from the "Create", "Update", and "Delete" buttons in the top row to their corresponding columns in the "equinix-uk" permission table.
- A large blue oval encloses the "Any Exchange" dropdown and its associated checkboxes for "equinix-uk".
- An arrow points from the "Any Exchange" dropdown for "rho" to the "Any Exchange" dropdown for "equinix-uk".
- Below the tables, descriptive text defines the actions:

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	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
- 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/

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

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.peerengdb.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

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



Thank you to our initial 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 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)
- April 15th through 29th 23:59:59 UTC 2016: voting

Board Elections (April 2016)

- Board candidates (as of 10 April, 2016)
 - Patrick W. Gilmore
 - Matt Griswold
 - Florian Hibler
 - Aaron Hughes
 - Arnold Nipper
 - Job Snijders

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>

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)

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?