



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



Search here for a network, IX, or facility.

ghankins

[Advanced Search](#)

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		

Facilities are Shown Here
AMS-IX has no Facilities

Networks

Filter

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

Networks are Shown Here
AMS-IX has 3 Network Records

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

Exchanges are Shown Here
AMS-IX has 6 Exchange Records

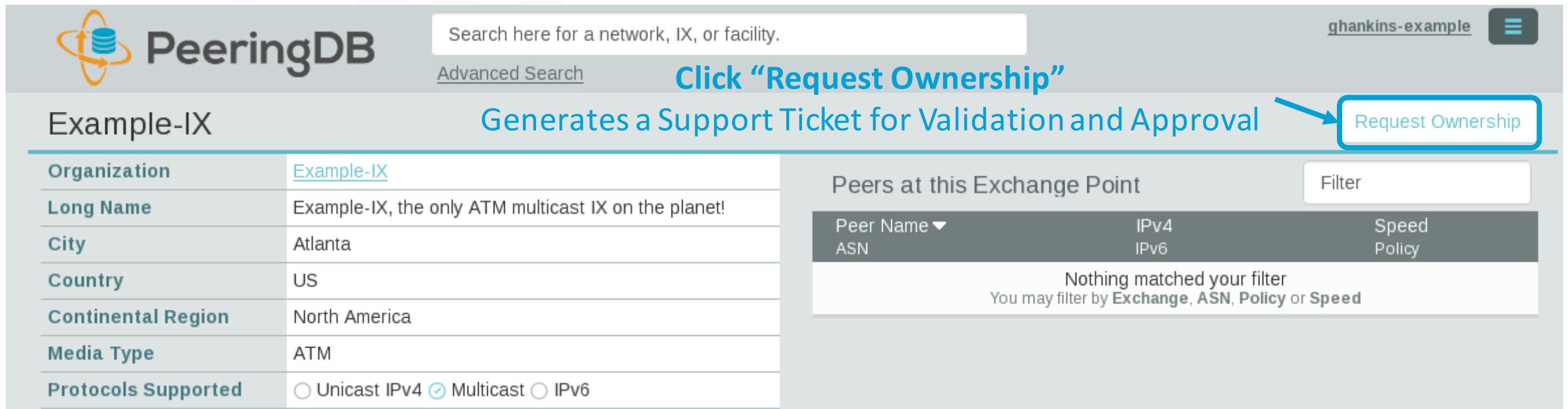
One Account Managing Multiple Organizations

The screenshot shows the PeeringDB website interface. At the top left is the PeeringDB logo. To its right is a search bar with the text "Search here for a network, IX, or facility." and a link to "Advanced Search". In the top right corner, the user's account name "job" is displayed next to a menu icon. The main content area is titled "Affiliate with Organization" and contains a form with two input fields: "ASN" and "Organization", and an "Affiliate" button. Below the form is a section titled "Existing Affiliations" which lists four approved affiliations: "NTT Communications (Global)", "NLNOG RING", "Netwerkvereniging Coloclue", and "Snijders IT". A blue arrow points from the "job" account name to the "Existing Affiliations" section.

**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 header includes the PeeringDB logo, a search bar, and the user 'ghankins-example'. A blue callout box highlights the 'Request Ownership' button, with an arrow pointing to it from the text 'Click "Request Ownership" Generates a Support Ticket for Validation and Approval'. Below the organization details, there is a table for 'Peers at this Exchange Point' which is currently empty, displaying a message: 'Nothing matched your filter. You may filter by Exchange, ASN, Policy or Speed'.

PeeringDB Search here for a network, IX, or facility. ghankins-example

[Advanced Search](#) **Click "Request Ownership"** [Request Ownership](#)

Example-IX Generates a Support Ticket for Validation and Approval

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](#) ghankins

1. Go to Your Profile [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

Approve or Deny Pending Requests

Delegate Permissions for Members
Admins Have Access to Everything

Manage

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

Users requesting affiliation

Name	Email	Date
User	Confirmed	

Currently no users requesting affiliation with Nokia IP 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 rows of administrative permissions. The first row is for user Paul Cairney (equinix-uk). The second row is for user Raphael Ho (rho). Each row has a header with the user's name and email, followed by columns for 'Create', 'Update', and 'Delete' actions. Below these columns are lists of permissions with checkboxes. Blue circles and arrows highlight specific permissions and actions.

User	Permission	Create	Update	Delete
Paul Cairney <paul.cairney@eu.equinix.com> equinix-uk	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"/>	
Raphael Ho <raphael.ho@ap.equinix.com> rho	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"/>

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)

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 locals 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.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

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

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 the search bar, the PeeringDB logo is visible. The main content area shows a record for "DE-CIX Frankfurt" with a "platinum" badge circled in orange. Below the record title is a table with the following data:

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



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

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>

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?