PeeringDB 2.0

Matt Griswold
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Agenda

• PeeringDB 2.0
• Membership / Governance
• Committees
• April 2016 Elections
• Sponsorship
• Contact Information
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
  • 2.0.9 current release
  • 20C (developer contractor) very responsive to community - thanks!

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Key New Infrastructure Features

- Complete rewrite in Python
  - Python: fast and clean, widely used and supported
  - HTML5: adaptive design for desktop and mobile
  - Support for a multidriver 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
Facilities are Shown Here
LINX has 1 Facility

Networks are Shown Here
LINX has 2 Network Records

Exchanges are Shown Here
LINX has 6 Exchange Records
One Account Managing Multiple Organizations

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

Click “Request Ownership” Generates a Support Ticket for Validation and Approval
Register or Request Affiliation to an Existing Organization

1. Go to Your Profile
2. Confirm Email Address (Click Here if not Confirmed)
3. Enter ASN or Organization Here
   Autocomplete on Existing ASNs and Organizations in PeeringDB
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 requesting affiliation

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Currently no users requesting affiliation with Nokia IP/Optical Networks Labs

Users in Organization

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Greg Hankins
g.hankins@alcatel-lucent.com

Admin – Administrator
Member – Delegate Permissions

Remove Users From the Organization
Does not Remove the User Account From PeeringDB

Change User Access Levels
User “equinix-uk” can manage several network records, but **no** exchanges or facilities.

- **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.

- **Create** – New entries in record
- **Update** – Change existing entries in record
- **Delete** – Delete entries in record
Network Record Contact Information

Permissions

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/
Quick Examples Return Output in JSON

- List all networks: curl -X GET
  https://<username>:@www.peeringdb.com/api/net

- Show a specific network: curl -X GET
  https://<username>:@www.peeringdb.com/api/net/20

```json
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/
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

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- Membership / Governance
- Committees
- April 2016 Elections
- Sponsorship
- Contact Information
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

• 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!

Kate Gerry
Patrick Gilmore (Vice Chair)
Matt Griswold
Greg Hankins
Florian Hibler
Eric Lindsjö
Arnold Nipper
Eduardo Ascenço Reis
Job Snijders (Chair)
Walt Wollny

12 May, 2016
CHI-NOG 06, Chicago
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 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 for sponsorship info
Thank you to our sponsors!

Platinum Sponsor

DE-CIX

Silver Sponsors

amsix

DIGITAL REALTY

telx

FranceIX

Convergence hub

LINX

netnod

NIX.CZ

RIPE NCC
Board Elections (April 2016)

• 2016 election for the PeeringDB Board of Directors has concluded

• Board of Directors
  • Seat 1 (term expires 2017): Arnold Nipper
  • Seat 2 (term expires 2018): Aaron Hughes
  • Seat 3 (term expires 2017): Patrick W. Gilmore
  • Seat 4 (term expires 2018): Job Snijders
  • Seat 5 (term expires 2017): Matt Griswold

• 94 organizations were registered to vote, 80 ballots cast
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://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.

12 May, 2016

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Questions?
Adding a New Exchange to Your Organization

Generates a Support Ticket for Validation and Approval

Enter Exchange Info Here, Then Click “Submit Exchange”

Table:

<table>
<thead>
<tr>
<th>Manage</th>
<th>Add Facility</th>
<th>Add Network</th>
<th>Users</th>
<th>Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.example.com">http://www.example.com</a></td>
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</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Country</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<tr>
<td>IPv6</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Traffic Stats Website</td>
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<td></td>
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</tr>
<tr>
<td>Technical E-mail</td>
<td><a href="mailto:name@example.com">name@example.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Phone</td>
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</tr>
<tr>
<td>Policy E-mail</td>
<td><a href="mailto:name@example.com">name@example.com</a></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Policy Phone</td>
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</tr>
</tbody>
</table>

Add a new Exchange to your Organization. Note that the newly created Exchange will need to be approved by PeeringDB staff before it will appear in the search results or the API listings.
Editing Your Exchange Record

Enter Exchange Info Here, Then Click “Save”

Networks are Still Required to Associate their Record at a Facility or Exchange
Editing Your Exchange Record

Enter LAN Info Here
Name – Optional Name
DOT1Q – 802.1Q Tag
MTU
IPv4/IPv6 Addresses

Add Facilities Here
Autocomplete on Existing Facilities, Must Contact Support to Add a New Facility