# PeeringDB Update

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RIPE 76
Marseille, France
14 – 18 May 2018

# Presentation Goals

- Slide overview and content
  - We're developing a new 2018 slide deck with a short/medium/long format for presentation at conferences
  - A 101 introduction tutorial is at the end after the main deck
  - Planning to expand the tutorial into more detailed 201, 301, etc. versions
- Highlight integration with PeeringDB
  - We want to promote the lastest tools and integration developments
  - If you have a tool you'd like us to announce, please get in touch at productcom@lists.peeringdb.com
- We want your feedback on PeeringDB's presence at conferences!
  - Goal is to educate and evangelize PeeringDB to facilitate interconnection
  - How can we be most effective in building the peering community?

# Agenda

1. Organization Update
2. Strategic Goals and Organizational Objectives
3. Feature Planning Process and Roadmap Update
4. Third Party Integration
5. Tutorial

# What is PeeringDB?

**Mission statement:** "PeeringDB, a nonprofit member-based organization, facilitates the exchange of user maintained interconnection related information, primarily for Peering Coordinators and Internet Exchange, Facility, and Network Operators."

- 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, so please
  - Update and maintain your whois information
  - Register from a company email address

# Database Record Statistics

| | 2.0 Launch 2016-03-15 | 2016-12-31 | 2016 % Growth | 2017-12-31 | 2017 % Growth |
|---|---|---|---|---|---|
| Facilities | 1,957 | 2,130 | 9% | 2,635 | 24% |
| IXPs | 630 | 556 | -12% | 614 | 10% |
| Networks | 5,881 | 8,116 | 38% | 11,327 | 40% |
| Organizations | 7,490 | 9,132 | 22% | 11,917 | 30% |
| Users | 7,866 | 11,486 | 46% | 15,538 | 35% |

- Strong growth each year since PeeringDB 2.0 launch
  - Lower IXP count in 2016 due to database cleanup
- Users number indicates registered users affiliated with an organization
  - All information except for contact info is available without a login
  - Not an indication of total PeeringDB users

# Governance and Membership

- PeeringDB is a United States 501(c)(6) volunteer organization that is 100% funded by sponsorships
- Healthy organization, building financial reserves and executing the long term strategic plan
- Membership rules
  - 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
  - 332 addresses subscribed to the Governance mailing list (as of May 3, 2018)
  - Governance list is at http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov
  - More information available at http://gov.peeringdb.com/

# Board of Directors and Officers

Chris Caputo – Secretary & Treasurer
(Non-Board Member)

Patrick Gilmore – Director
(Term Expires 2019)

Aaron Hughes – President
(Term Expires 2020)

Arnold Nipper – Director
(Term Expires 2019)

Bijal Sanghani – Director
(Term Expires 2019)

Job Snijders – Vice President
(Term Expires 2020)

# Committees

| Admin Committee | Operations Committee | Outreach Committee | Product Committee |
|---|---|---|---|
| • Manage administration of user accounts and PeeringDB records<br>• Answer support tickets | • Manage PeeringDB infrastructure | • Manage marketing and social media<br>• Develop and maintain presentations, workshops and webinars<br>• Coordinate presence at events | • Ask for input from the community on desired features<br>• Manage roadmap and development priorities<br>• Write SoWs to solicit bids to complete requested features |
| Leads: Arnold Nipper (Chair)<br><br>Contact:<br>admincom@lists.peeringdb.com | Leads: Job Snijders (Chair) and Aaron Hughes (Vice Chair)<br>Contact:<br>pdb-ops@lists.peeringdb.com | Leads: Bijal Sanghani (Chair) and Aaron Hughes (Vice Chair)<br>Contact:<br>outreachcom@lists.peeringdb.com | Leads: Eric Loos (Chair) and Matt Griswold (Vice Chair)<br>Contact:<br>productcom@lists.peeringdb.com |

NEW!

# Admin Committee

Luisa Fernanda Villa y Battenberg

Hendrik Braasch

Christoffer Hansen

Peter Helmenstine

Bryan Jong

Noelle Kenny

Julimar Mendes

Arnold Nipper – Chair

Rob Parker

Brad Raymo

Job Snijders

Marty Strong

# Support Ticket Statistics
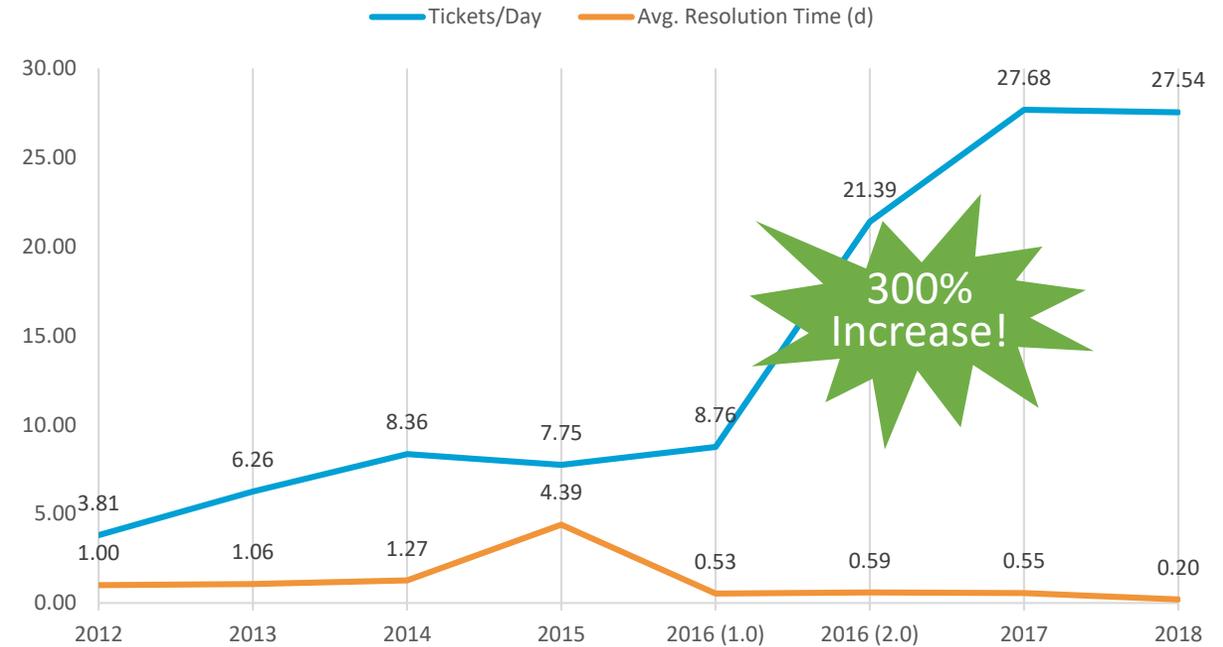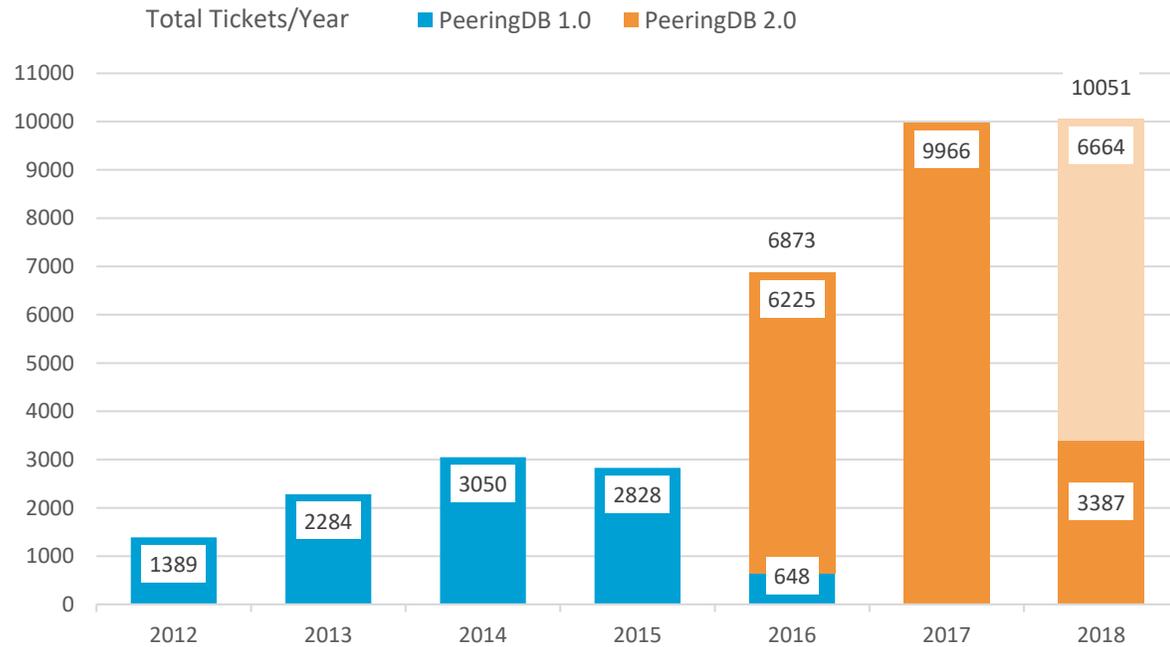


- Admin Committee volunteers are based around the world in a variety of time zones
- Goal is to resolve support tickets within 24 hours

# Automated Request Validation

- A lot of support tickets were opened to manually approve new network registrations and affiliation requests
- Automated request validation was introduced in PeeringDB 2.2.1 on July 5, 2017
  - Validation is based on RIR RDAP information
- Gives users immediate automated processing of these requests, no more waiting on a human to respond
- Significantly reduced the Admin Committee's workload
  - ~2,900 automated tickets services since July 5 , 2017 (33% of total tickets)
- First set of new, budgeted features following the Product Committee workflow

# Operations Committee

Matt Griswold

Aaron Hughes – Vice Chair

Stefan Pratter

Job Snijders – Chair

Matthew Walster

# Outreach Committee



Bijal Sanghani – Chair



Aaron Hughes – Vice Chair

# Product Committee

Samer Abdel-Hafez

Karthik Arumugham

Matt Griswold – Vice Chair

Greg Hankins

Florian Hibbler

Aaron Hughes
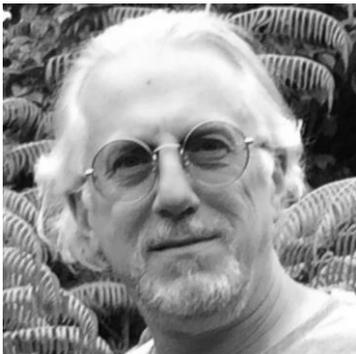
Martin Levy

Eric Loos – Chair

Stephen McManus

Arnold Nipper

Chris Phillips

Job Snijders

# Become a PeeringDB Sponsor!

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

| Microsoft | Diamond Sponsor |
|---|---|
| Organization | Microsoft |
| Also Known As | 8068 |
| Company Website | http://www.microsoft.com |
| Primary ASN | 8075 |
| IRR Record | AS-MICROSOFT |

| DE-CIX Frankfurt | Platinum Sponsor |
|---|---|
| Organization | DE-CIX Management GmbH |
| Long Name | Deutscher Commercial Internet Exchange |
| City | Frankfurt |
| Country | DE |
| Continental Region | Europe |

Proud Sponsor of **PeeringDB** GOLD

# Thank you to our sponsors!

**Diamond Sponsor**
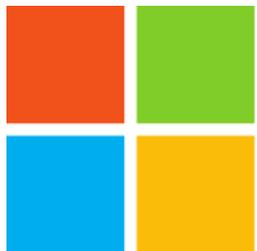
Microsoft

**Platinum Sponsors**

DE-CIX   Google   YAHOO!

**Gold Sponsors**

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PREFIX IPv4 BROKER   Stealth COMMUNICATIONS

**Silver Sponsors**

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KDDI   TELEHOUSE   lacnic   linx   NETNOD   NIX·CZ   NLix neutral internet exchange   NTT Communications

NYIIX   LAIIX   PeeringManager   RIPE NCC RIPE NETWORK COORDINATION CENTRE   SysEleven   TERACO AFRICA'S DATA CENTRE   workonline communications   zenlayer

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# 2018 – 2019 Strategic Direction

- Ensure reliability, security and support of PeeringDB services

- Maintain, develop, and enhance functionality of PeeringDB services as sought by the users and supported by the membership and community

- Educate the community on effective use of PeeringDB

- Evangelize use of PeeringDB

**Rock Solid
Critical Infrastructure**

Uptime Status: http://status.peeringdb.com/

# 2018 – 2019 Strategic Direction

- Encourage support of PeeringDB via sponsorship
- Build a reserve of 2 years of operational funds for the longterm stability of the organization
- Strengthen relationships with operator and peering forums, and other related databases, to work cooperatively on interconnection topics
- Strengthen relationships with Regional Internet Registries (RIRs) with respect to access to authoritative data
- Legal review of liabilities, and insurance (D&O)
- Succession planning
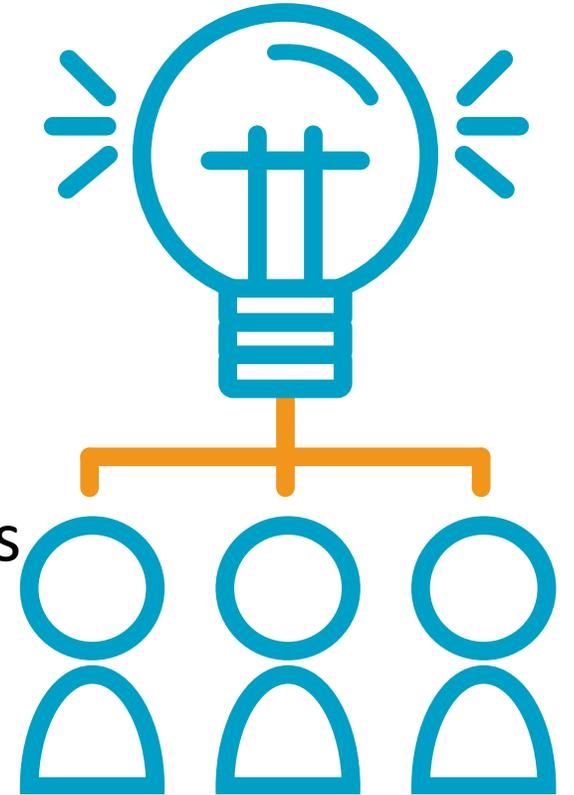
# High Priority Tasks for 2018

- Maintain SLAs and contracts for all supporting service providers
- Write Operational Service Level Policy (OSLP) for services provided to the community and regularly report compliance
- Document operational infrastructure
- Regular third-party security audit
- Ensure security for private user data
- Conduct redundancy and restoration test bi-annually
- Provide education material in the form of a quick start guide, embedded online assistance, webinars and tutorials for both users and developers

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# Feature Workflow

- All features tracked using GitHub at https://github.com/peeringdb/peeringdb/issues with the ZenHub overlay
  - Anyone can open a feature requests, there are no internal or hidden requests
  - Open and transparent process for feature development
  - Workflow is at http://docs.peeringdb.com/workflow/
- Product Committee feature process
  - Evaluate and prioritize the requests
  - Request a quote for development costs
  - Request budget from the board
  - Manage implementation and scheduling

| Example Categories |
| --- |
| AC (Support Workflow) |
| Bug |
| Enhancement |
| Usability |

**Your input is needed on features!**

PeeringDB

# New Release Process

- Announced at least one week in advance with all changes to give the community notice
  - Beta site is already running the development version for testing
  - Announced on PDB Announce list, Twitter, Facebook
- Released on Wednesdays at 0400Z and avoids
  - Mondays and Fridays
  - International holidays
  - Large conferences and events (APRICOT, EPF, GPF, NANOG, RIPE, etc.)
- List of current changes (release notes) for each version are on GitHub at
  https://github.com/peeringdb/peeringdb/milestones
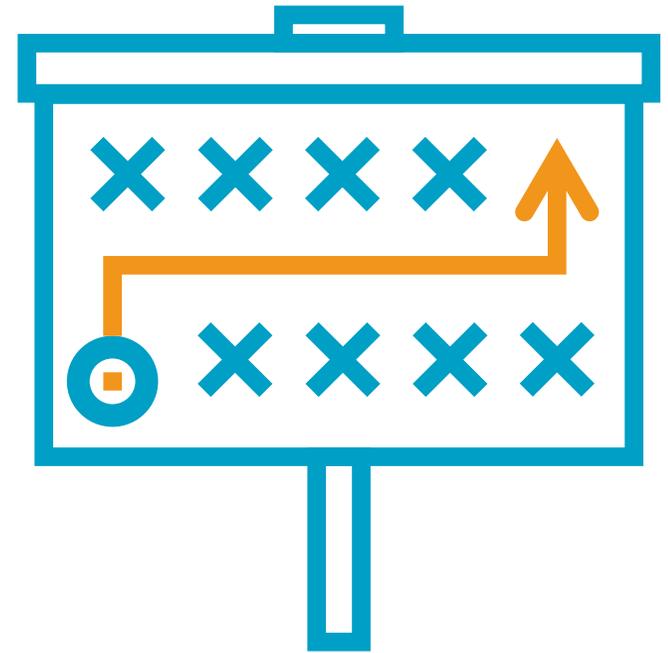
# Beta Development

- Beta server
  - Available at https://beta.peeringdb.com/
  - Runs the latest beta software version
  - Full access over HTTP and the API
  - Database is local to the beta server only, changes are not reflected on the production servers
- Latest changes
  - Available at https://beta.peeringdb.com/changes
  - Redirects to the list of issues on GitHub
  - Documents all of the changes in the current beta version
- Anyone can log bugs and feature requests in GitHub at https://github.com/peeringdb/peeringdb/issues

# 2018 Roadmap

- Several maintenance releases with small features have been released since PeeringDB 2.0 was launched

- Released 2.5.3 on 2017-09-06
  - Updated to Django 1.11; added coordinates for facilities and organizational addresses

- Released 2.6.5 on 2017-11-14
  - Allow IXP Updates and Import of member information in IX-F JSON schema format

- We will have major releases with larger features in 2018

- Roadmap focus areas
  - Data quality, privacy, confidentiality
  - Usability and API
  - Platform stability and reliability
  - Product evolution

- Communication focus areas
  - Partner management
  - Communication outreach
  - Membership engagement

# Import of Data Provided by IXPs

- **For Networks**
  - Allow IXPs to maintain your IXP connection information
  - One setting for all IXPs where you are connected
  - Off by default

- **For IXPs**
  - IXPs provide participant data (IP addresses, speed, RS peering)
  - Imported into PeeringDB nightly using IX-F JSON schema

- See issue #237 on GitHub for details

** We welcome and encourage dual-stack peering at all peering locations.

PeeringDB Configuration

Allow IXP Update ◯

Peering Policy Information
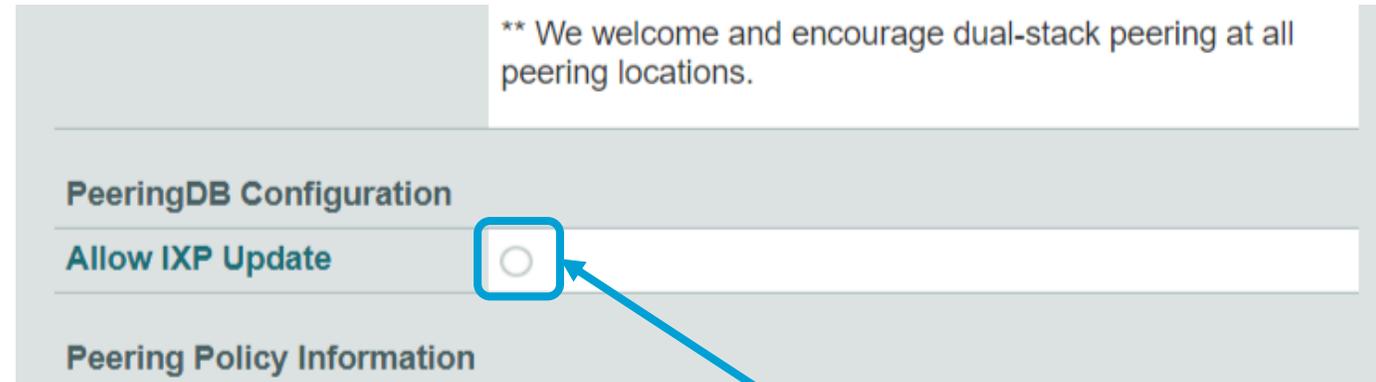
Networks Click "Allow IXP Update" in Network Record

LANs          Filter

| Name | DOT1Q | MTU |
| --- | --- | --- |
| ☒ Main | ☐ | 1500 |
| IXF Member Export URL | | |
| ☒ IPv4 | 80.81.192.622 | |
| ☒ IPv6 | 2001:7f8::/64 | |
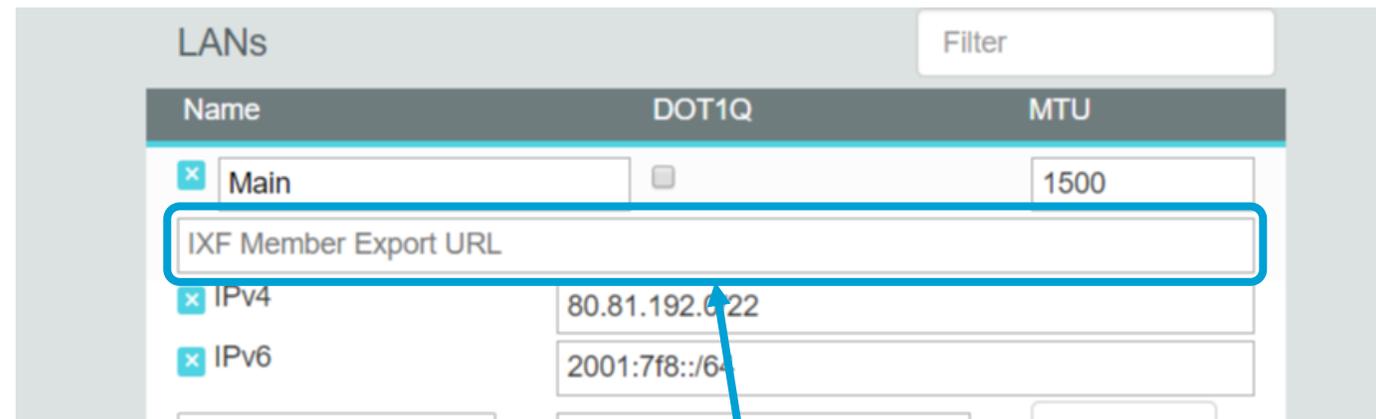
IXPs Set Export URL in Exchange Record

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# Third Party Integration

- PeeringDB maintains interconnection data
  - Permissions and privacy on user information are set by the user
  - Accuracy is essential
  - Exchange sources are vetted
  - Data conflicts are resolved by the Admin Committee
- Third party integration with PeeringDB has started in two ways
  - Data exchange with organizations
  - Use by free and commercial software, full list at http://docs.peeringdb.com/#tools

# Data Exchange

- PeeringDB's goals are to
  - Maintain data integrity
  - Provide complete data needed for interconnection
- Working to exchange data with organizations that maintain data on facilities, IXPs, and networks
  - Open and transparent process and integration
  - Not for user data
- IXP data: IX-F, PCH
- Network data: RIRs (ASNs)
- Facility data: Inflect

# Facility Data Validation by Inflect

- Facility data is inconsistent and incomplete
  - Any registered user can suggest facility data
  - Sometimes it's maintained by the facility operator, often it's not
- Inflect is an open, neutral search and procurement tool for internet infrastructure services that provides accurate, validated information
  - Preferred partner to provide free validation of facility data
  - LOI signed August 4, 2017
  - Work in progress now to exchange and import validated facility data

Unvalidated Facility Data

Validated Facility Data

Validation
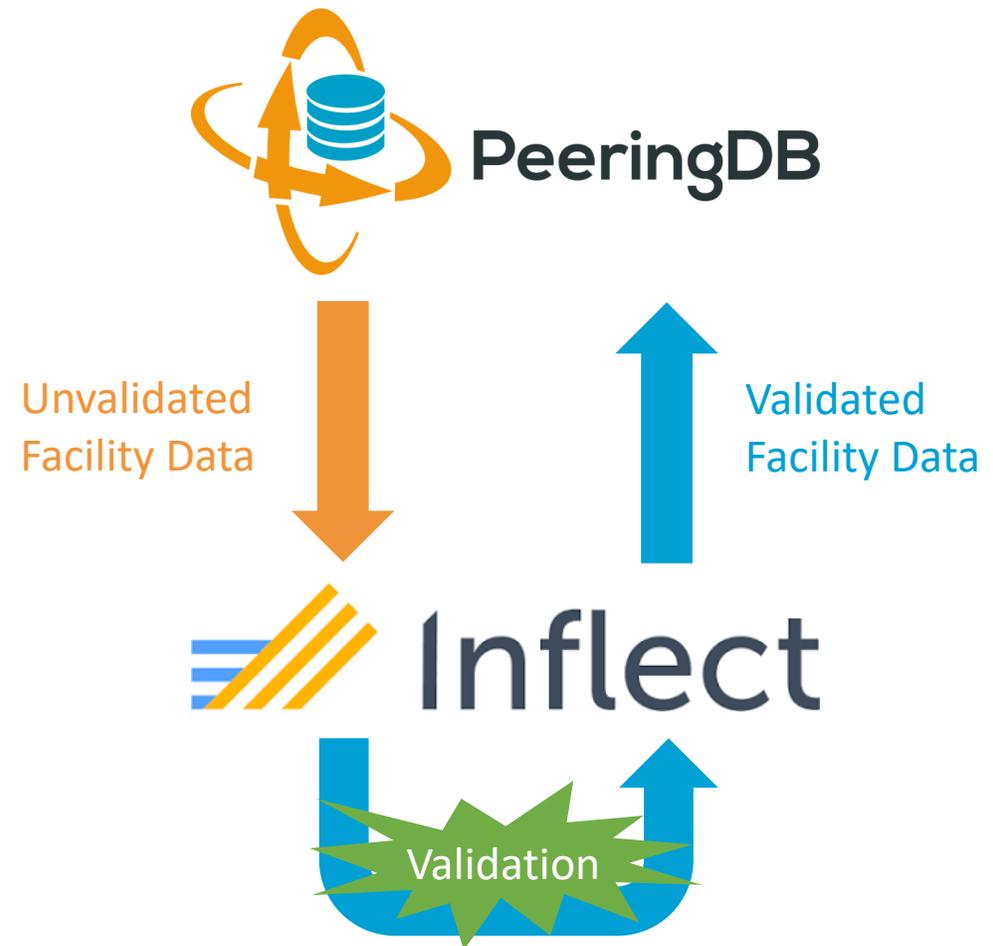
# Information and Resources

- Announce list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-announce

- Governance list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov

- Technical list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-tech

- User Discuss list: http://lists.peeringdb.com/cgi-bin/mailman/listinfo/user-discuss

- Docs, presentations, guides, tools: http://docs.peeringdb.com/

- Board and Officers: stewards@lists.peeringdb.com

- Admins: support@peeringdb.com

- Presentation requests: productcom@lists.peeringdb.com

- Uptime status: http://status.peeringdb.com/

- Bugs and feature requests: https://github.com/peeringdb/peeringdb/

- Social media:

  @PeeringDB

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

  https://www.linkedin.com/company/peeringdb

# Questions?

# PeeringDB 2.0 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 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!
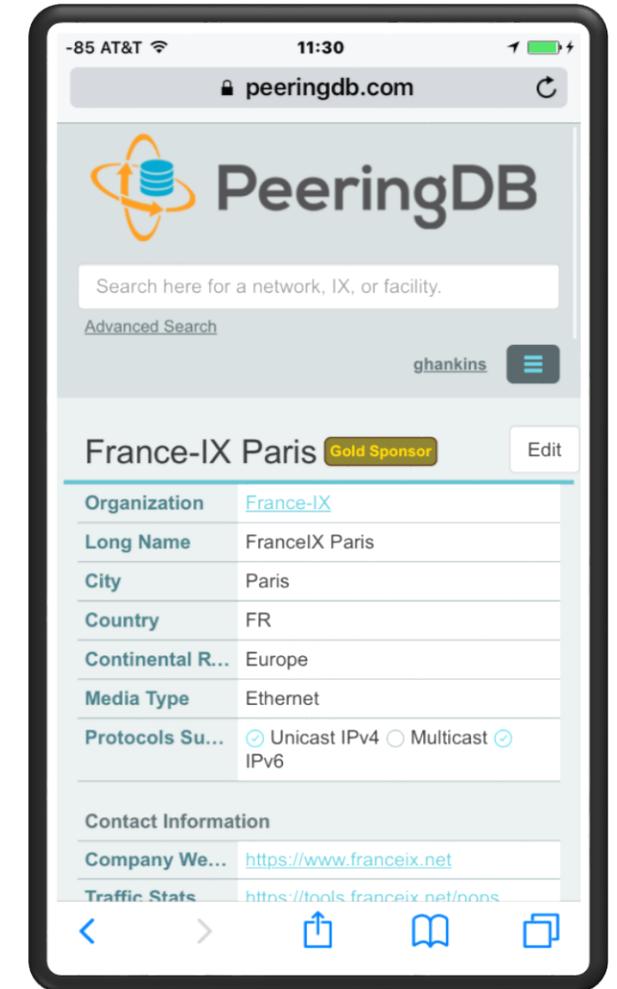
# PeeringDB 2.0 Key New User Features

- 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

# 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, " ... }
```

# List All Peers at an IXP (CATNIX)

| Peer Name ▼ ASN | IPv4 IPv6 | Speed Policy |
|---|---|---|
| Acens Technologies 16371 | 193.242.98.9 None | 1G Open |
| ADAM 15699 | 193.242.98.137 2001:7f8:2a:0:2:1:1:5699 | 1G Open |
| Adamo Telecom Iberia S.A 35699 | 193.242.98.143 2001:7f8:2a:0:2:1:2:9518 | 10G Open |
| Altecom (Alta Tecnologia en Comunicacions, S.L.) 16030 | 193.242.98.4 2001:7f8:2a:0:1:1:1:6030 | 10G Open |
| bitNAP Datacenter 43578 | 193.242.98.160 2001:7f8:2a:0:3:1:4:3578 | 1G Open |
| BT Spain 12541 | 193.242.98.145 2001:7f8:2a:0:2:2:0:8903 | 1G Open |
| CATNIX-SERVICES 49638 | 193.242.98.119 None | 6G Open |
| Claranet 8426 | 193.242.98.131 2001:7f8:2a:0:2:1:0:8426 | 1G Selective |
| Cloudflare 13335 | 193.242.98.153 2001:7f8:2a:0:2:1:1:3335 | 10G Open |
| Colt Technology Services 8220 | 193.242.98.13 None | 1G Open |
| CSUC 13041 | 193.242.98.38 None | 10G Open |
| Easynet Global Services 4589 | 213.234.0.15 2001:7f8:2a:0:2:1:0:4589 | 1G Selective |
| EBRETIC ENGINYERIA SL 199496 | 193.242.98.162 2001:7f8:2a:0:3:1:19:9496 | 1G Open |

```
% curl -s -X GET https://www.peeringdb.com/api/netixlan\?ixlan_id=62 \
  | jq '.data[]'
{
  "id": 459,
  "net_id": 91,
  "ix_id": 62,
  "name": "CATNIX",
  "ixlan_id": 62,
  "notes": "",
  "speed": 1000,
  "asn": 8220,
  "ipaddr4": "193.242.98.13",
  "ipaddr6": null,
  "is_rs_peer": false,
  "created": "2010-07-29T00:00:00Z",
  "updated": "2016-03-14T21:09:42Z",
  "status": "ok"
}
```

# 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
- 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 outputs 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

# 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

# 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

# Multiple Records Under a Single Organization

**LINX** [Silver Sponsor]

| | |
|---|---|
| Website | https://www.linx.net |
| Address 1 | The London Internet Exchange Ltd |
| Address 2 | 5th Floor, 24 Monument Street |
| Location | London, , EC3R 8AJ |
| Country Code | GB |

**Facilities**    [Filter]

| Name ▼ | Country City |
|---|---|
| IXCardiff | United Kingdom Cardiff |

**Networks**    [Filter]

| Name ▼ | ASN |
|---|---|
| LINX NoVA (LINX USA Inc.) | 21919 |
| LINX Route Servers | 8714 |
| London Internet Exchange (LINX) | 5459 |

**Exchanges**    [Filter]

| Name ▼ | Country City |
|---|---|
| IXCardiff | United Kingdom Cardiff |
| IXManchester | United Kingdom Manchester |
| IXScotland | United Kingdom Scotland |
| LINX LON1 | United Kingdom London |
| LINX LON2 | United Kingdom London |
| LINX NoVA | United States of America Northern Virginia |

**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**

# 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 User | Email Confirmed | Date |
|---|---|---|
| | Currently no users requesting affiliation with Nokia IP/Optical Networks Labs | |

**Users in Organization**

| Name User | Email | Group | |
|---|---|---|---|
| Greg Hankins ghankins | greg.hankins@alcatel-lucent.com | admin | Remove |
| | | member | |
| | | admin | 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 <u>no</u> Exchanges or Facilities**

| Paul Cairney <paul.cairney@eu.equinix.com> equinix-uk | Create | Update | Delete |
|---|---|---|---|
| ☒ Network - Equinix Netherlands | ☑ | ☑ | ☑ |
| ☒ Network - Equinix UK | ☑ | ☑ | ☑ |
| ☒ Network - Equinix Germany | ☑ | | |
| ☒ Network - Equinix France | ☑ | | |
| ☒ Network - Equinix Switzerland | ☑ | | |
| Any Exchange ⇕ | ☐ | | Add |

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

| Raphael Ho <raphael.ho@ap.equinix.com> rho | Create | Update | Delete |
|---|---|---|---|
| ☒ Network - Equinix Connect | ☑ | ☑ | ☐ |
| ☒ Any Exchange | ☑ | ☑ | ☐ |
| ☒ Any Facility | ☑ | ☑ | ☐ |
| Any Exchange ⇕ | ☐ | ☐ | ☐ Add |

**User "rho" can Manage the "Equinix Connect" Network Record, and Any Exchange or Facility**

PeeringDB

# 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

# Adding Your Network to an IXP or Facility

1. **Go to your network record and click on "Edit"**
2. **Start to type in the name of the IXP and select the IXP**
3. **If the IXP is missing, contact PeeringDB support**
4. **Add your IP addresses, port speed, and click the "RS Peer" box if you peer with the route server**
5. **Finally click on "Add Exchange Point"**
- **Use the same procedure for adding a Facility**

World Phone Internet Services Pvt. Ltd.

http://www.worldphone.in

18002

http://www.example.com

http://www.example.com

Cable/DSL/ISP

250

0

10-20Gbps

Heavy Inbound

Asia Pacific

☑ Unicast IPv4  ☐ Multicast  ☐ IPv6

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**Public Peering Exchange Points**　Filter

| Exchange ▼ | IPv4 | Speed |
|---|---|---|
| ASN | IPv6 | RS Peer |

Nothing matched your filter
You may filter by **Exchange**, **ASN** or **Speed**

Exchange | mumbai i

Mumbai Internet Exchange　IN
Mumbai Convergence Hub : India's Largest Peering Internet Exchange Hub
Mumbai IX ( Mumbai CH )

Local ASN

IPv4

IPv6

Speed (mbit/sec) | 0

RS Peer | ☐

Add Exchange Point

**Private Peering Facilities**　Filter

| Facility ▼ | Country |
|---|---|
| ASN | City |

Nothing matched your filter
You may filter by **Facility**, **ASN**, **Country**, **City**

Facility

Add Facility

# Adding a New Exchange to Your Organization



Generates a Support Ticket for Validation and Approval

Enter Exchange Info Here, Then Click "Submit Exchange"

# Editing Your Exchange Record



Example-IX

| | |
|---|---|
| Cancel | Save |

**Organization** Example-IX

**Long Name** Example-IX, the only ATM multicast IX on the planet!

**City** Atlanta

**Country** United States

**Continental Region** North America

**Media Type** ATM

**Protocols Supported** ☐ Unicast IPv4 ☑ Multicast ☐ IPv6

**Contact Information**

**Company Website** http://www.example.com

**Traffic Stats Website** http://www.example.com

**Technical Email** name@example.com

**Technical Phone**

**Policy Email** name@example.com

**Policy Phone**

Peers at this Exchange Point          Filter

| Peer Name ▼ | IPv4 | Speed |
|---|---|---|
| ASN | IPv6 | Policy |

Nothing matched your filter
You may filter by **Exchange**, **ASN**, **Policy** or **Speed**

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

**Enter Exchange Info Here, Then Click "Save"**

# 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

# Questions?