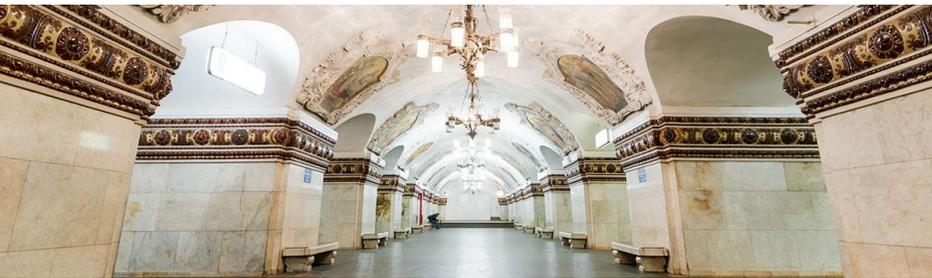




PeeringDB Update

Arnold Nipper

arnold@peeringdb.com



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 latest 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

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

- Manage administration of user accounts and PeeringDB records
- Answer support tickets

Leads: Arnold Nipper (Chair)

Contact:

admincom@lists.peeringdb.com

Operations Committee

- Manage PeeringDB infrastructure

Leads: Job Snijders (Chair) and Aaron Hughes (Vice Chair)

Contact:

pdb-ops@lists.peeringdb.com

Outreach Committee

- Manage marketing and social media
- Develop and maintain presentations, workshops and webinars
- Coordinate presence at events

Leads: Greg Hankins (Chair) and Bijal Sanghani (Vice Chair)

Contact:

outreachcom@lists.peeringdb.com



Product Committee

- Ask for input from the community on desired features
- Manage roadmap and development priorities
- Write SoWs to solicit bids to complete requested features

Leads: Eric Loos (Chair) and Matt Griswold (Vice Chair)

Contact:

productcom@lists.peeringdb.com

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

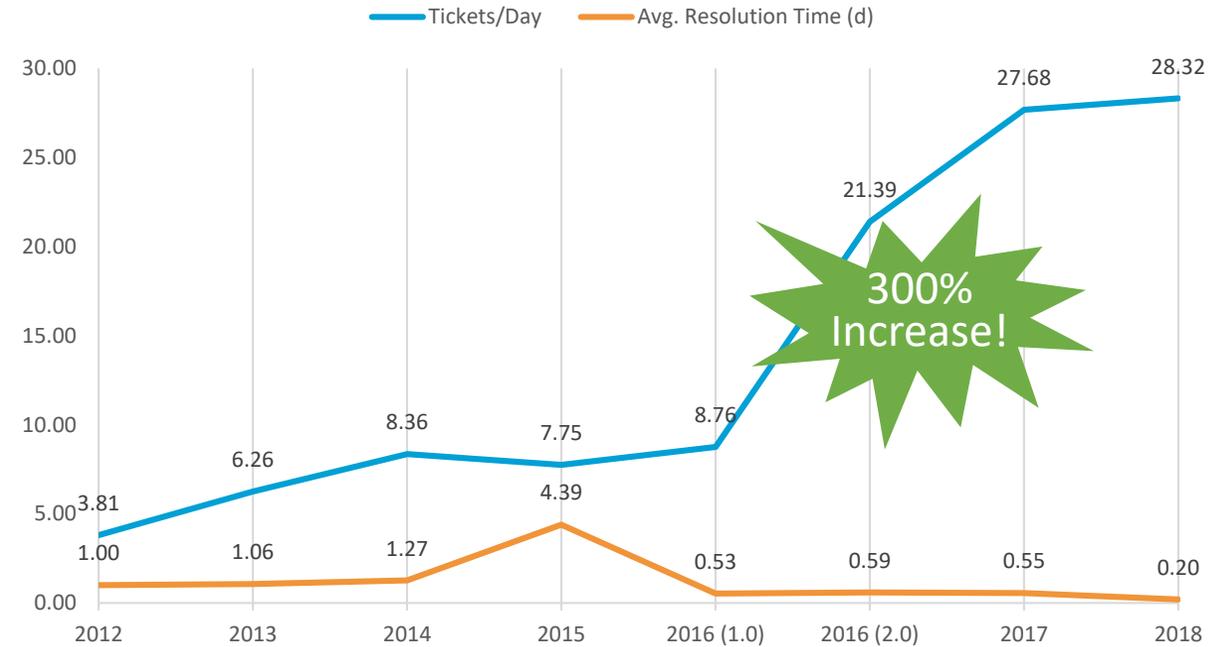
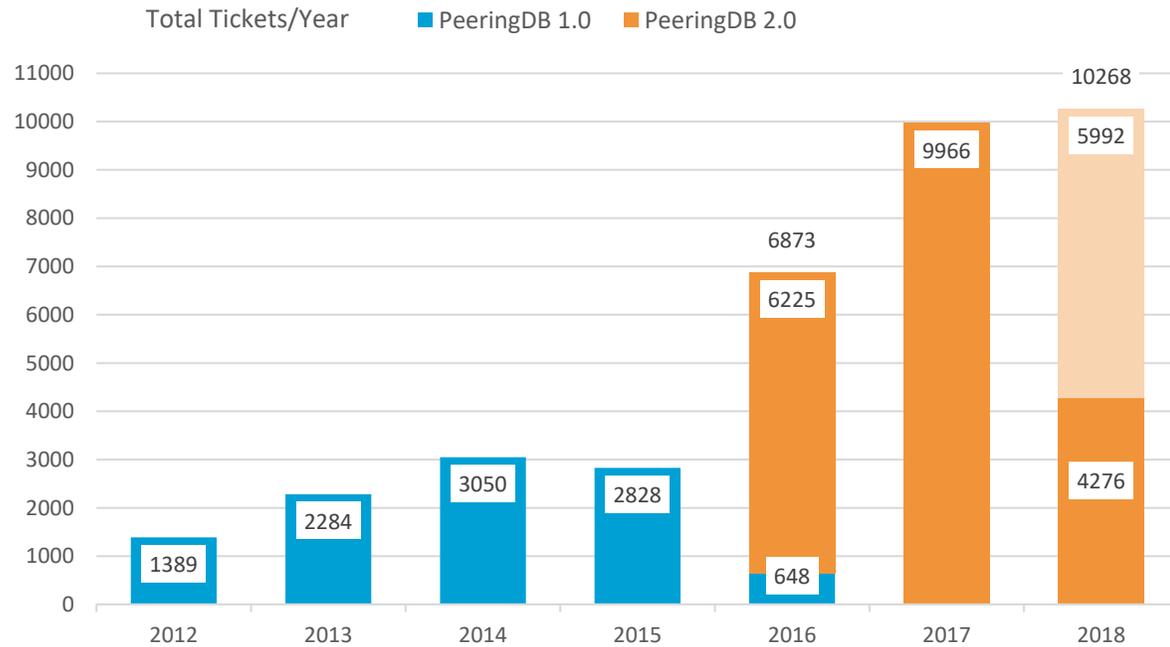


Job
Snijders



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



Greg Hankins –
Chair



Aaron Hughes



Arnold Nipper



Bijal Sanghani –
Vice Chair

Product Committee



Samer
Abdel-Hafez



Karthik
Arumugham



Matt Griswold –
Vice Chair



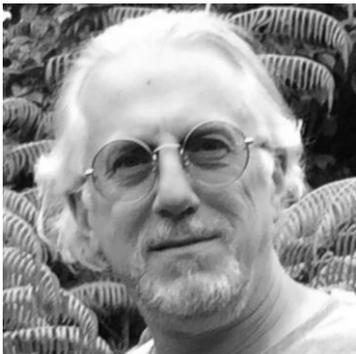
Greg
Hankins



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 |

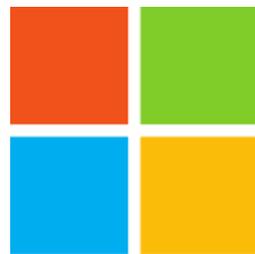


Proud Sponsor of
PeeringDB



Thank you to our sponsors!

Diamond Sponsor



Microsoft

Platinum Sponsors



Gold Sponsors



Silver Sponsors



Agenda

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

2018 – 2019 Strategic Direction

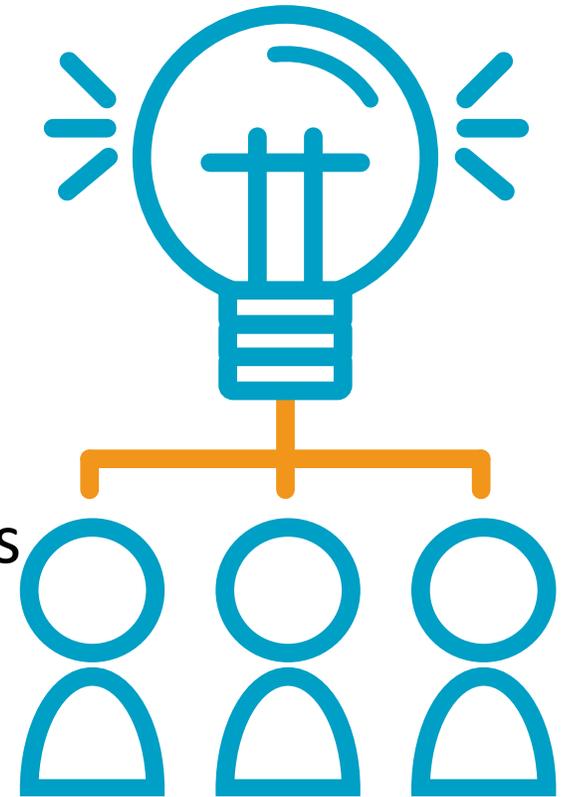
- Ensure reliability, security and support of PeeringDB services
- Maintain, develop, and enhance functionality of PeeringDB services as sought by the users and supported by the membership and community
- Educate the community on effective use of PeeringDB
- Evangelize use of PeeringDB



**Rock Solid
Critical Infrastructure**

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

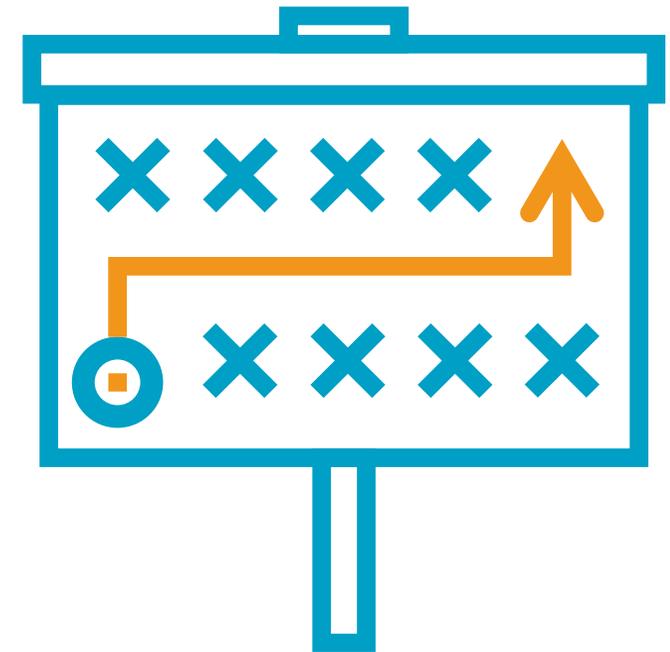
Enhancement

Usability

Your input is needed on features!

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>

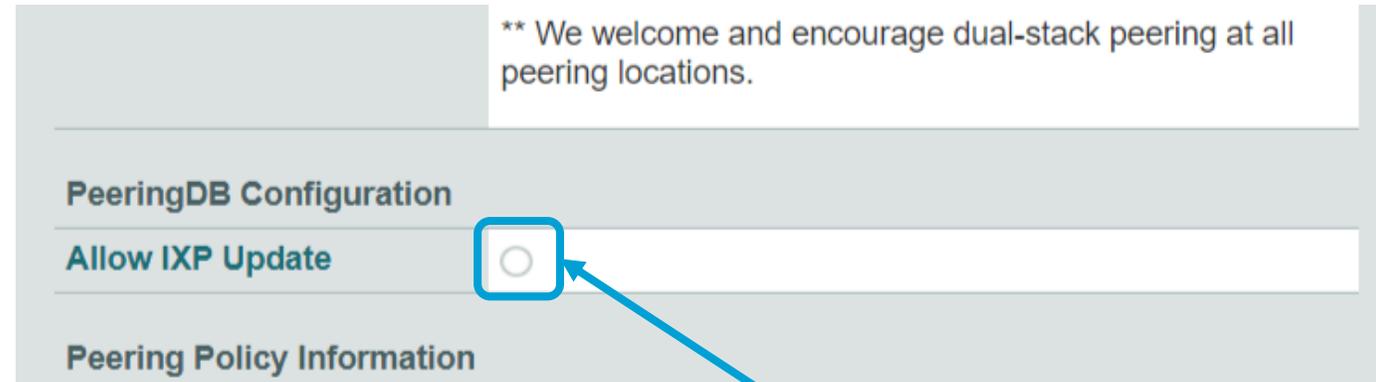


2018 Roadmap

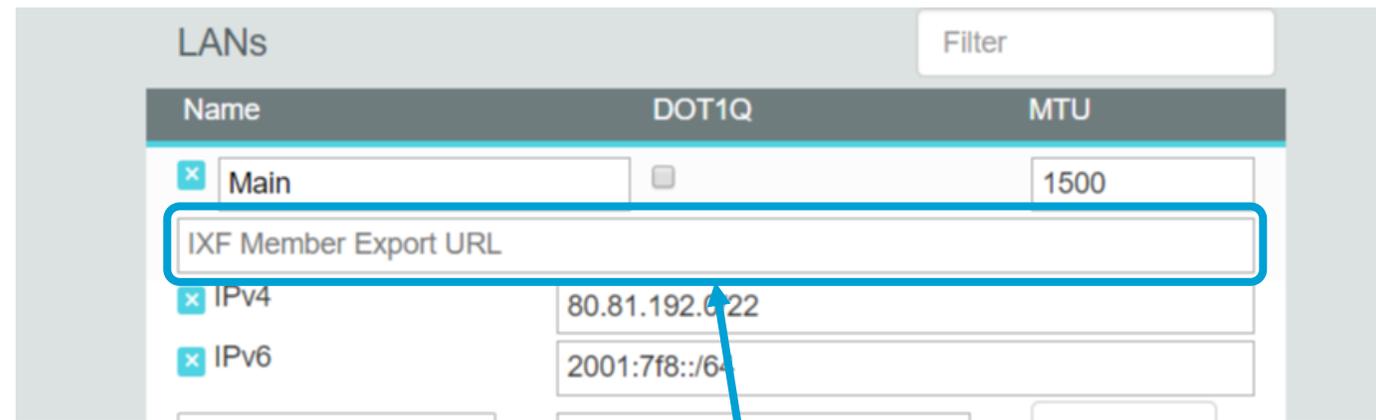
- Several maintenance releases with small features have been released since PeeringDB 2.0 was launched
- Released 2.5.3 on 2017-09-06
 - Updated to Django 1.11; added coordinates for facilities and organizational addresses
- Released 2.6.5 on 2017-11-14
 - Allow IXP Updates and Import of member information 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



Networks Click "Allow IXP Update" in Network Record



IXPs Set Export URL in Exchange Record

Internationalization Support – New in 2.9.1

Search for a network, IX, or facility.

Search

Select language

English

English

Portuguese

You have confirmed your email address!

ghankins

Nokia

Profile

Logout

1. Go to Your Profile
2. Choose Your Language and click “Set language preference”

3. Text Now Appears in the Selected Language!

Translations Wanted!
Get in Touch With
productcom@lists.peeringdb.com
if You are Interested in Translating

Especificamente, somos um banco de dados de redes que fazem peering, onde eles fazem peering, e se eles gostariam de fazer peering com você. Se você não sabe o que é peering, e/ou se você ainda não faz peering, então isso provavelmente não terá qualquer significado para você.

Você está atualmente numa visualização somente leitura dos dados contidos aqui. Se você é uma rede de peering que gostaria de criar uma conta, [você pode se registrar para uma aqui](#). Por favor, registrar apenas se estiver uma rede de Peering

Ainda tem dúvidas ou perguntas? [Leia o nosso FAQ](#)

Agenda

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2. Strategic Goals and Organizational Objectives
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Third Party Integration

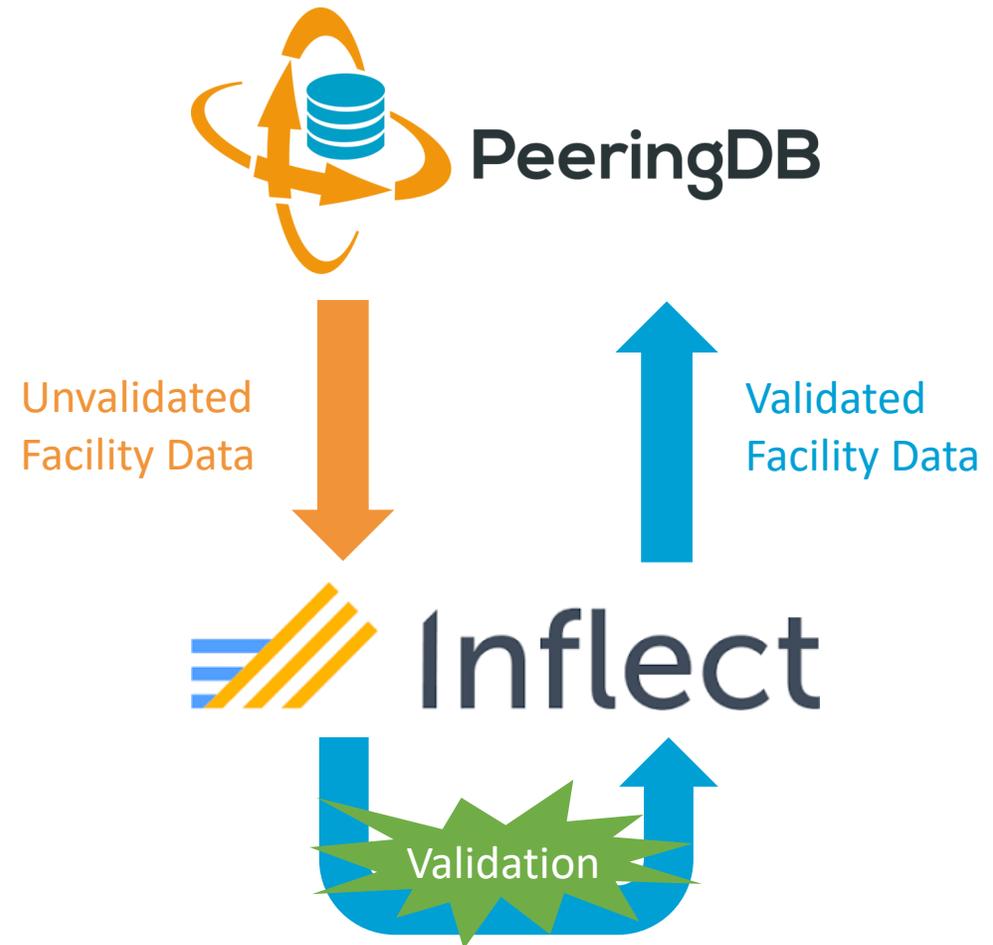
- PeeringDB maintains interconnection data
 - Permissions and privacy on user information are set by the user
 - Accuracy is essential
 - Exchange sources are vetted
 - Data conflicts are resolved by the Admin Committee
- Third party integration with PeeringDB has started in two ways
 - Data exchange 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



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://twitter.com/PeeringDB)
 -  <https://www.facebook.com/peeringdb/>
 -  <https://www.linkedin.com/company/peeringdb>



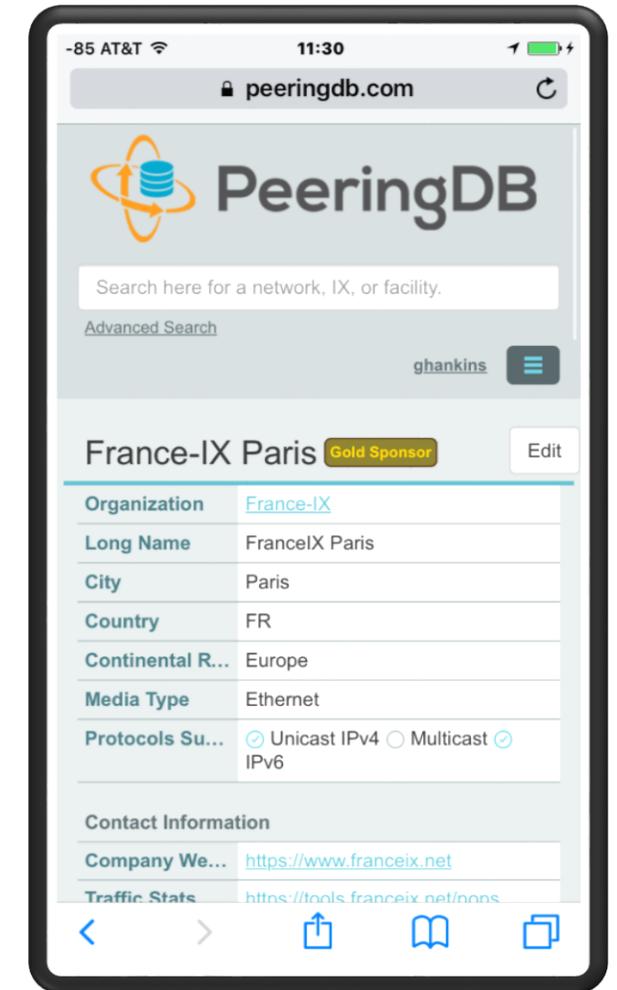
Questions?



Tutorial Slides

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)

Peers at this Exchange Point

Filter

| 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

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

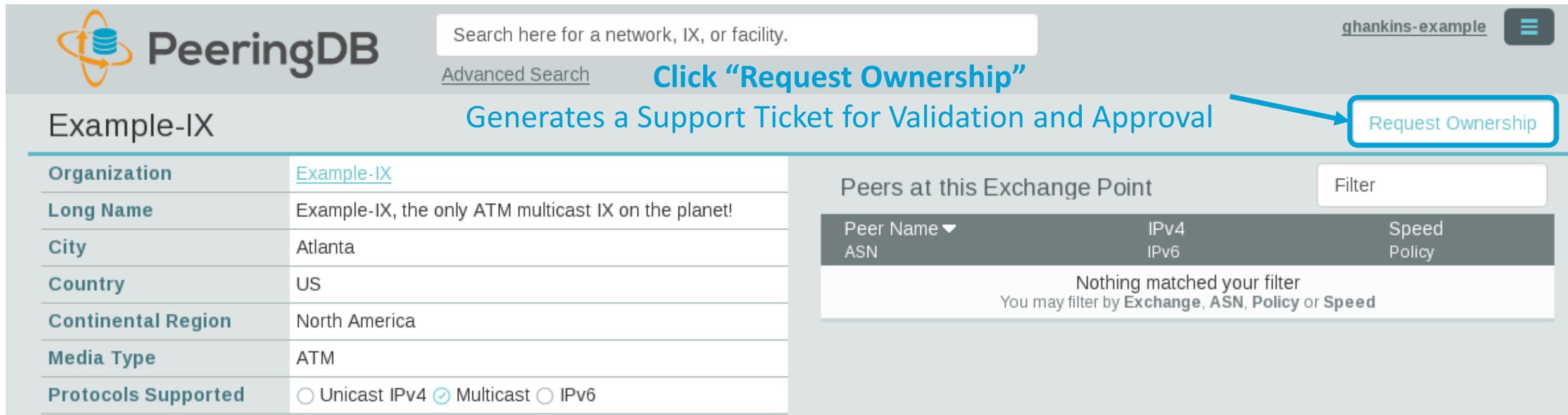
Nokia IP/Optical Networks Labs

Profile

Logout

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 organization details are as follows:

| | |
|---------------------|--|
| 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 |

On the right side, there is a section titled 'Peers at this Exchange Point' with a 'Filter' input field. Below this, a message states: 'Nothing matched your filter. You may filter by Exchange, ASN, Policy or Speed'. A blue arrow points from the text 'Click "Request Ownership" Generates a Support Ticket for Validation and Approval' to a button labeled 'Request Ownership'.

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

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

Networks

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

Exchanges

| 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

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 text "Search here for a network, IX, or facility." and a link to "Advanced Search". In the top right corner, there is a navigation menu with the word "job" circled in blue. Below the search bar is a form titled "Affiliate with Organization". The form contains two input fields: "ASN" and "Organization", followed by 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" link in the navigation bar to the text on the right. Another blue arrow points from the text on the right to the "Existing Affiliations" section.

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 | 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 | <input type="text" value="admin"/> member admin | <input type="button" value="Remove"/> <input type="button" value="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 administrative permissions:

- Paul Cairney <paul.cairney@eu.equinix.com> equinix-uk**
 - Network - Equinix Netherlands
 - Network - Equinix UK
 - Network - Equinix Germany
 - Network - Equinix France
 - Network - Equinix Switzerland
 - Any Exchange

| Action | Permission |
|--------|-------------------------------------|
| Create | <input checked="" type="checkbox"/> |
| Update | <input checked="" type="checkbox"/> |
| Delete | <input checked="" type="checkbox"/> |
- Raphael Ho <raphael.ho@ap.equinix.com> rho**
 - Network - Equinix Connect
 - Any Exchange
 - Any Facility
 - Any Exchange

| Action | Permission |
|--------|-------------------------------------|
| Create | <input checked="" type="checkbox"/> |
| Update | <input checked="" type="checkbox"/> |
| Delete | <input type="checkbox"/> |

Legend:
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

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.

Unicast IPv4 Multicast IPv6

Public Peering Exchange Points

Filter

| Exchange | ASN | IPv4 | IPv6 | Speed | RS Peer |
|---|-----|------|------|-------|---------|
| Nothing matched your filter You may filter by Exchange, ASN or Speed | | | | | |
| <input type="text" value="mumbai"/> | | | | | |

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

RS Peer

Private Peering Facilities

Filter

| Facility | ASN | Country | City |
|---|-----|---------|------|
| Nothing matched your filter You may filter by Facility, ASN, Country, City | | | |
| <input type="text"/> | | | |

Adding a New Exchange to Your Organization

Manage

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

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

Submit Exchange

Generates a Support Ticket for Validation and Approval

Enter Exchange Info Here, Then Click "Submit Exchange"

| | |
|-----------------------|---|
| Name | <input type="text"/> |
| Website | <input type="text" value="http://www.example.com"/> |
| City | <input type="text"/> |
| Country | <input type="text" value="United States"/> |
| Continental Region | <input type="text" value="North America"/> |
| Media Type | <input type="text" value="Ethernet"/> |
| Unicast IPv4 | <input type="checkbox"/> |
| Multicast | <input type="checkbox"/> |
| IPv6 | <input type="checkbox"/> |
| Traffic Stats Website | <input type="text" value="http://www.example.com"/> |
| Technical E-mail | <input type="text" value="name@example.com"/> |
| Technical Phone | <input type="text"/> |
| Policy E-mail | <input type="text" value="name@example.com"/> |
| Policy Phone | <input type="text"/> |

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 | <input type="checkbox"/> Unicast IPv4 <input checked="" type="checkbox"/> Multicast <input type="checkbox"/> 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 | | |

Enter Exchange Info Here, Then Click "Save"

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

Editing Your Exchange Record

The screenshot displays the 'LANs' configuration section of the PeeringDB interface. A blue box highlights the LAN configuration form, which includes a table with columns for Name, DOT1Q, and MTU. Below the table are input fields for Name, DOT1Q, and MTU, and an 'Add LAN' button. The 'Local Facilities' section below shows a search bar with 'atlanta' entered and a dropdown menu listing facilities like 'Equinix Atlanta (AT2/3)', 'Telx Atlanta', and 'Level(3) Atlanta Courtland'. A blue arrow points from the text 'Add Facilities Here' to the search bar.

| Name | DOT1Q | MTU |
|--------------------------------------|--|-----------------------------------|
| <input type="checkbox"/> Peering LAN | <input checked="" type="checkbox"/> | <input type="text" value="9000"/> |
| <input type="checkbox"/> IPv4 | <input type="text" value="127.0.0.0/8"/> | |

- Equinix Atlanta (AT2/3)
56 Marietta St NW
- Telx Atlanta
56 Marietta St
- Level(3) Atlanta Courtland
345 Courtland St Ne

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?



Extra Slides

2017 Organizational Objectives

- Obtain contracts for all supporting service providers
- Ensure supporting services are always available
- Ensure regular backups for all services
- Ensure security for private user data
- Conduct redundancy and restoration test bi-annually
- Support the Admin Committee to ensure user expectations are met
- Manage contractor for maintenance, minor development and basic support for underlying PeeringDB platform
- Support the Product Committee for major development and feature enhancements to ensure user expectations are met
- Provide education material in the form of a quick start guide, embedded online assistance, webinars and tutorials
- Participate in peering discussions globally where possible
- Expand social media presence as new material is created
- Survey the existing sponsors
- Write and implement surplus plan
- Present at major conferences where possible
- Conduct one election in April each year
- Conduct one member meeting in April each year
- Engage council for annual review of liabilities and insurance
- Write succession plan

Software Highlight: TraceMON

- TraceMON is a tool for visualizing a network topology generated by traceroutes
 - Provides one-click access to IXP and network info
 - Displays PeeringDB info and allows the user to update their record
- RIPE Atlas users can access it by selecting a traceroute measurement and clicking on the TraceMON tab at <https://atlas.ripe.net/measurements/?search=&status=&af=&kind=2%2C4&age=#!tab-public>
- Full article is at https://labs.ripe.net/Members/massimo_candel_a/tracemon-traceroute-visualisation-network-debugging-tool

