PeeringDB 2.0

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Agenda

- **PeeringDB 2.0**
- Membership and Governance
- Committees
- Sponsorship
- Information and Resources

What is PeeringDB?

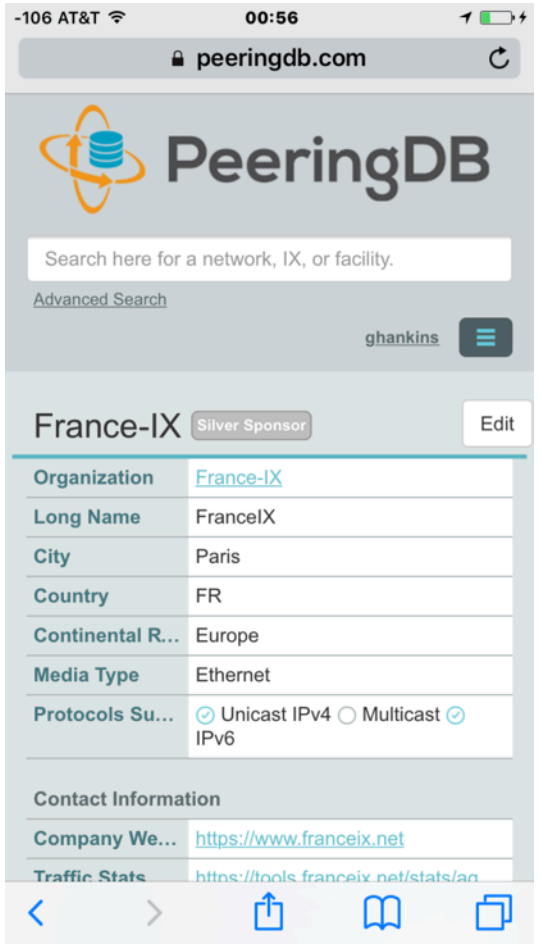
- PeeringDB is the database of peering information on the Internet
- Contains peering location and contact information for
  - Networks
  - Exchanges
  - Facilities
- A PeeringDB record makes it easy for people to find you, and helps you to establish peering
- If you aren't registered in PeeringDB, you 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 is Here!

- 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
  - 20C (developer contractor) very responsive to community - thanks!
- Current release: 2.0.10

Key New Infrastructure Features

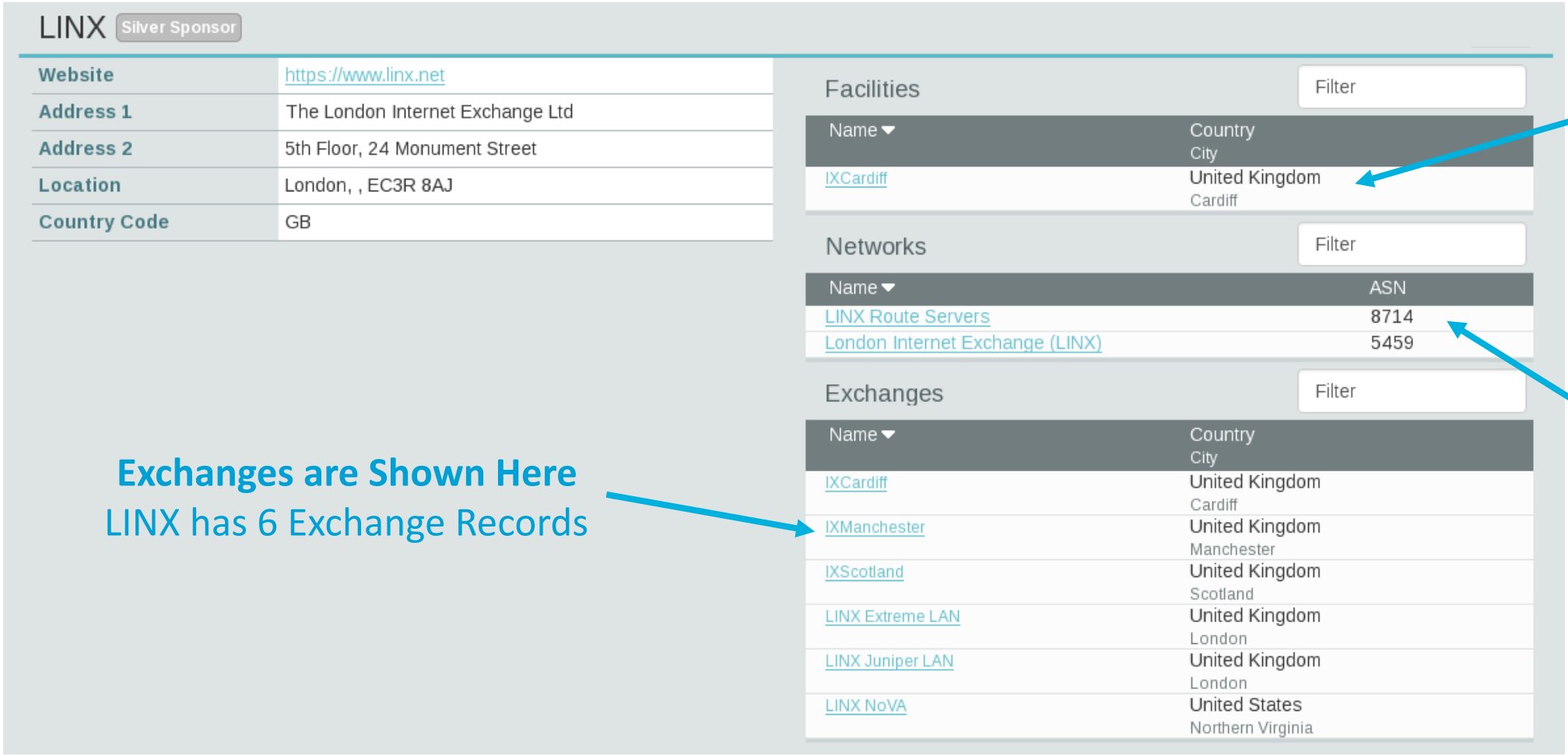
- Complete rewrite in Python
  - Python: fast and clean, widely used and supported
  - HTML5: adaptive design for desktop and mobile
  - Support for a multideveloper environment
- Redesigned schema with data validation
  - All data is permissioned and editable
  - Input validation on fields: IP addresses, 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!



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

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 Route Servers	8714
London Internet Exchange (LINX)	5459

Exchanges

Filter

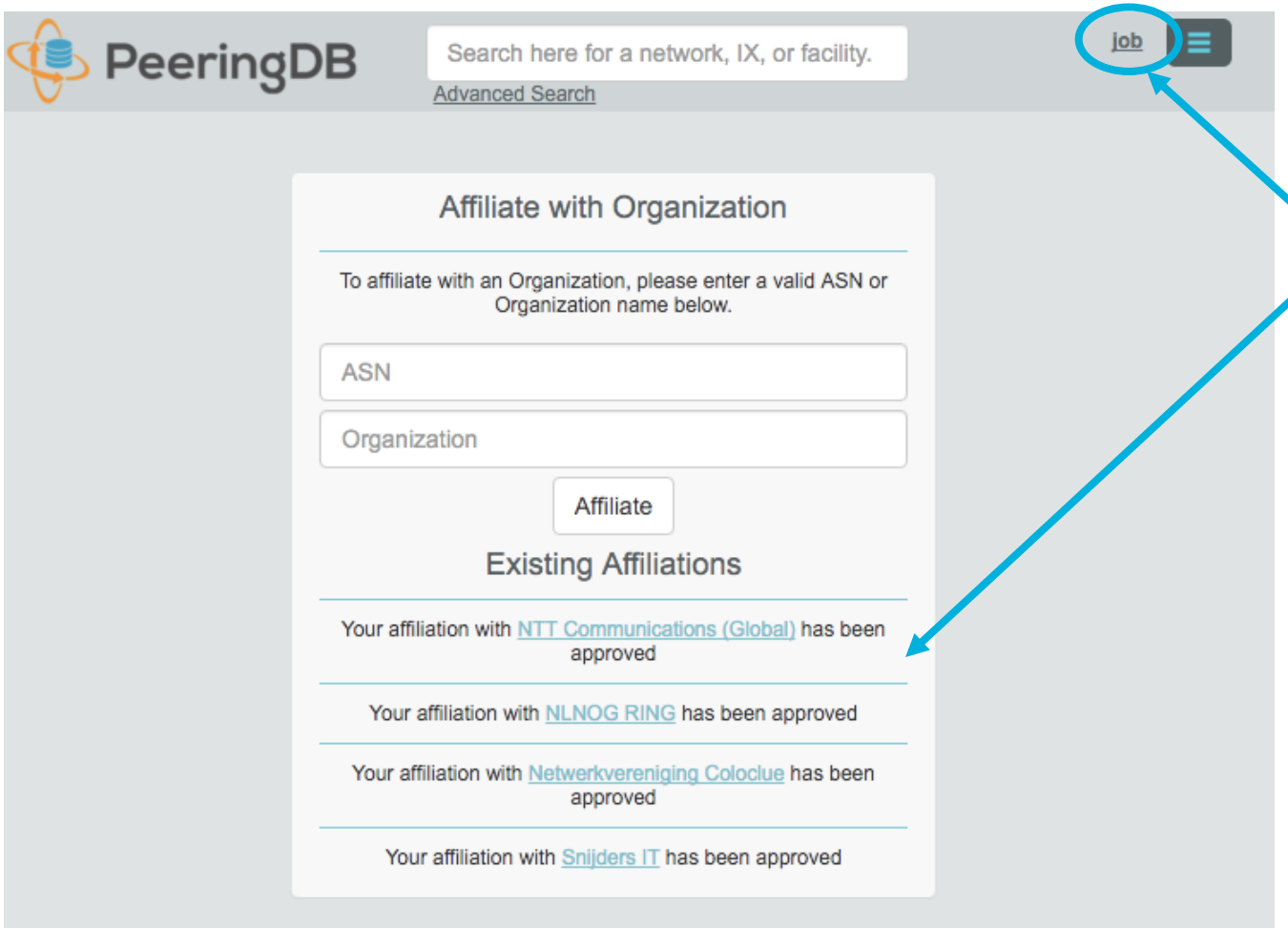
Name	Country / City
IXCardiff	United Kingdom / Cardiff
IXManchester	United Kingdom / Manchester
IXScotland	United Kingdom / Scotland
LINX Extreme LAN	United Kingdom / London
LINX Juniper LAN	United Kingdom / London
LINX NoVA	United States / Northern Virginia

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

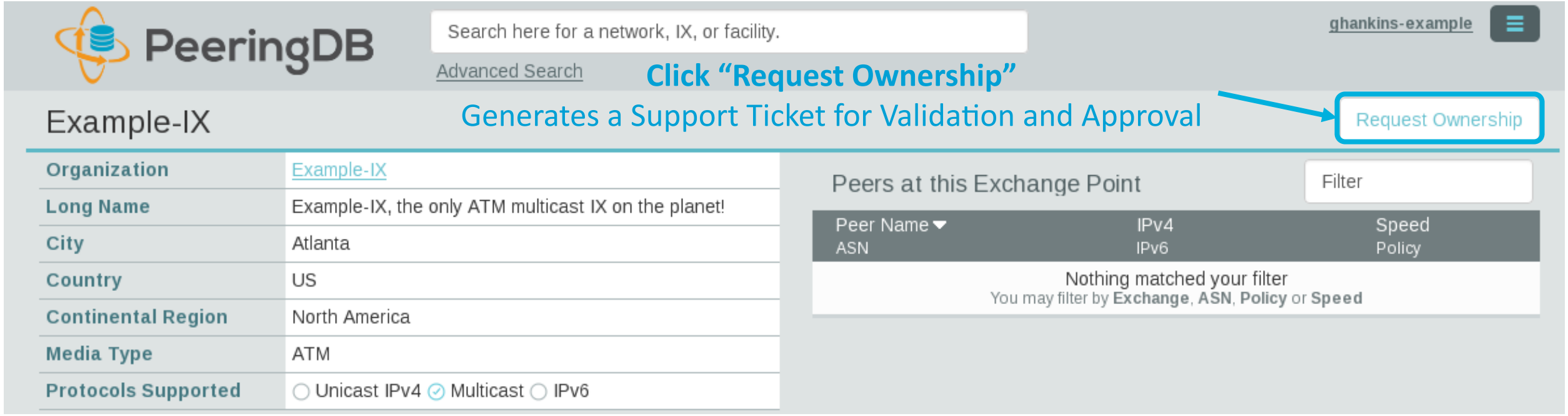
One Account Managing Multiple Organizations



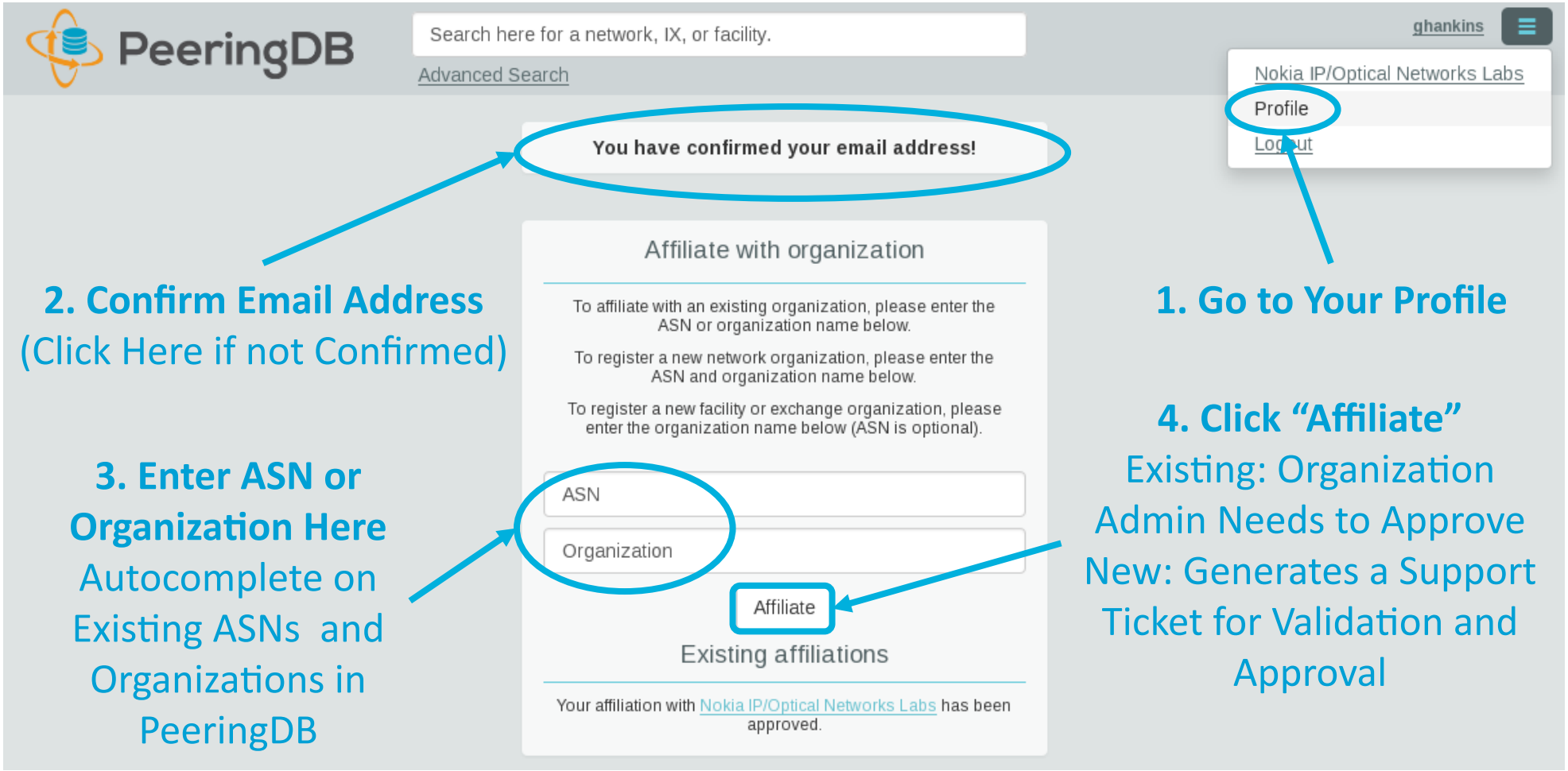
Account "job" is Affiliated with 4 Organizations

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



Register or Request Affiliation to an Existing Organization



2. Confirm Email Address
(Click Here if not Confirmed)

1. Go to Your Profile

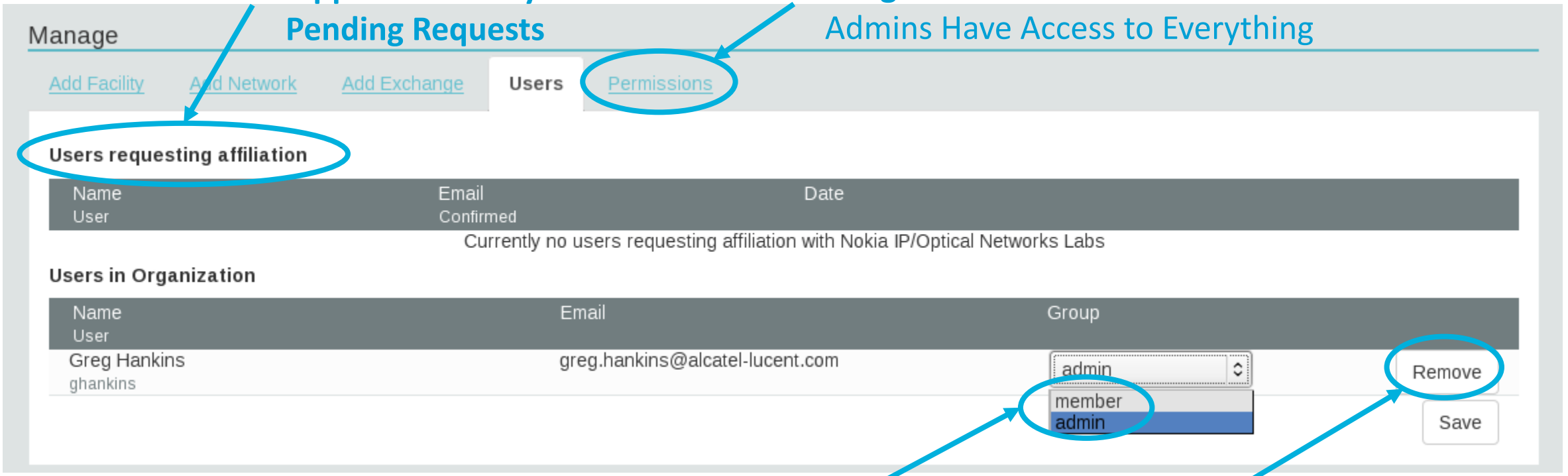
3. Enter ASN or Organization Here
Autocomplete on Existing ASNs and Organizations in PeeringDB

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

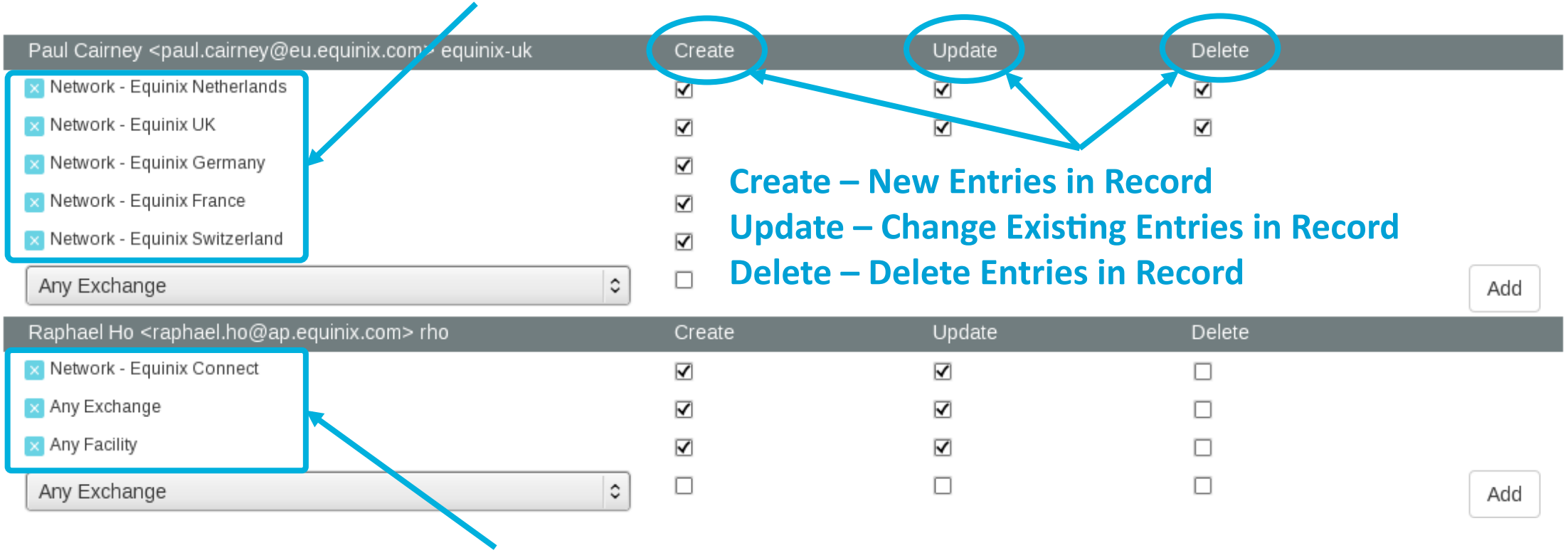


Change User Access Levels
Admin – Administrator
Member – Delegate Permissions

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

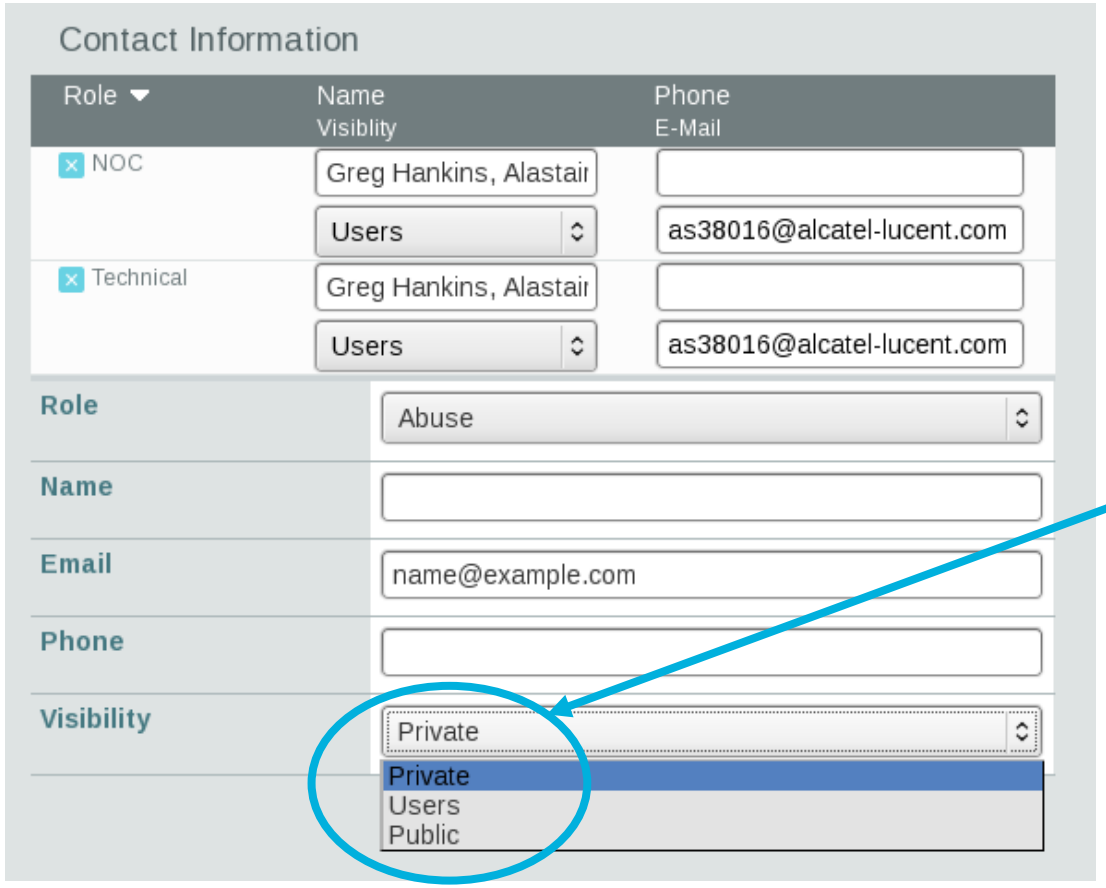
Administrative Permission Delegation

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



User “rho” can Manage the “Equinix Connect” Network Record, and Any Exchange or Facility

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

Networks from ENOG area (selected)

IXP	#networks @ PeeringDB	#networks seen @IXP
MSK-IX	133	380
DATA-IX	80	
DTEL-IX	58	95
UA-IX	44	102
SPB-IX	38	85
GigaNET	26	22
Global-IX	12	
EKT-IX	12	43
PIRIX	11	
NSK-IX	10	48

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
- 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

Agenda

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- **Membership and Governance**
- **Committees**
- **Sponsorship**
- **Information and Resources**

Membership and Governance

- PeeringDB organization formally formed 16 Dec, 2015
- PeeringDB 501(c)(6) filed 7 Jan, 2016 (approved 24 Feb, 2016)
- 2nd elections held April 2016: 94 organizations registered, 80 voted
- 292 addresses subscribed to the Governance mailing list (as of 16 May 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/

Board of Directors and Officers

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

Patrick Gilmore – Director
(Term Expires 2017)

Matt Griswold – Director
(Term Expires 2017)

Aaron Hughes – President
(Term Expires 2018)

Arnold Nipper – Director
(Term Expires 2017)

Job Snijders – Vice President
(Term Expires 2018)

Committees

Admin Committee

- Manage administration of user accounts and PeeringDB records
- Answer support tickets
- Board members Job Snijders (Chair) and Arnold Nipper (Vice Chair)
- Seeking 0 community volunteers (1 year term)
- Contact: support@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
- Board members Aaron Hughes (Chair) and Matt Griswold (Vice Chair)
- Seeking 0 community volunteers (1 year term)
- Contact: productcom@lists.peeringdb.com

Admin Committee

Kate Gerry

Patrick Gilmore

Charles Gucker

Greg Hankins

Florian Hibler

Eric Lindsjö

Arnold Nipper – Vice Chair

Robert Philips

Eduardo Ascenço Reis

Job Snijders – Chair

Michael Still

Walt Wollny

Product Committee

Karthik Arumugham

Matt Griswold – Vice Chair

Greg Hankins

Aaron Hughes – Chair

Martin J. Levy

Eric Loos

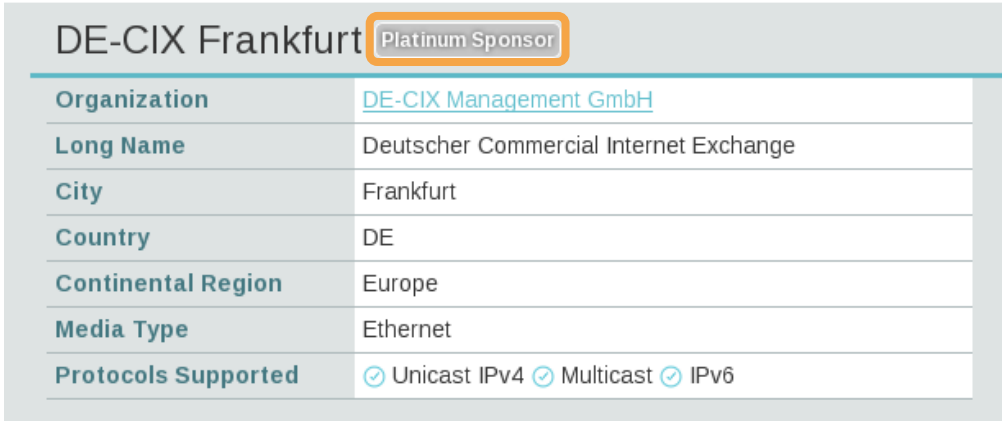
Stephen McManus

Arnold Nipper

Kay Rechthien

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!

Diamond Sponsors

Microsoft

Platinum Sponsors

DE-CIX

Gold Sponsors

Internet Society

Silver Sponsors

amsix, cologix, DIGITAL REALTY, telx, Equinix Convergence hub, LINX Est. 1994, netnod, NIX.CZ, NLIX neutral internet exchange, RIPE NCC RIPE NETWORK COORDINATION CENTRE

Information and Resources

- 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

- Docs, presentations, guides: http://docs.peeringdb.com/
- Board and Officers: stewards@lists.peeringdb.com
- Admins: support@peeringdb.com


@PeeringDB

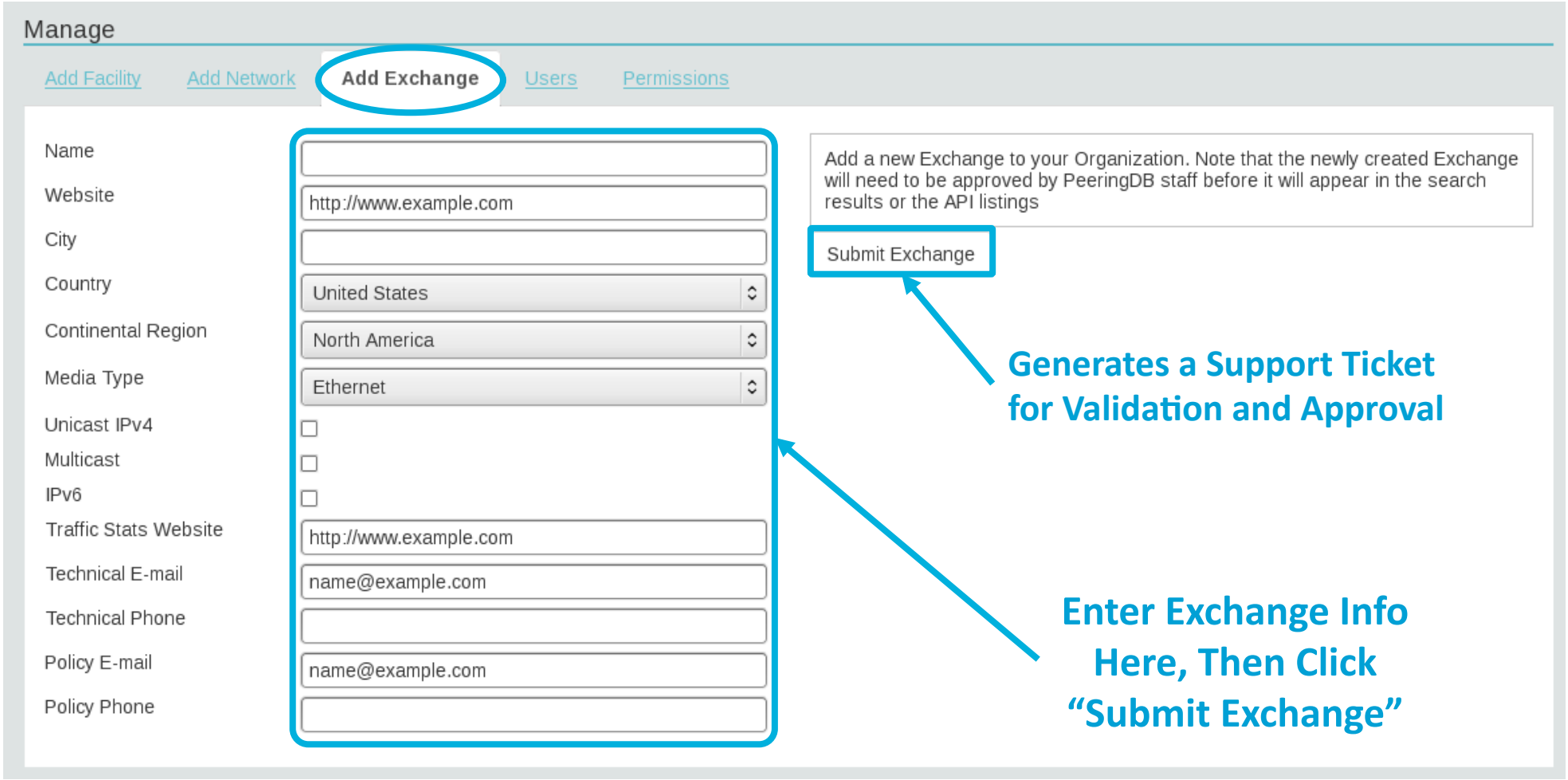

https://www.facebook.com/peeringdb/

Thanks to Richard Turkbergen

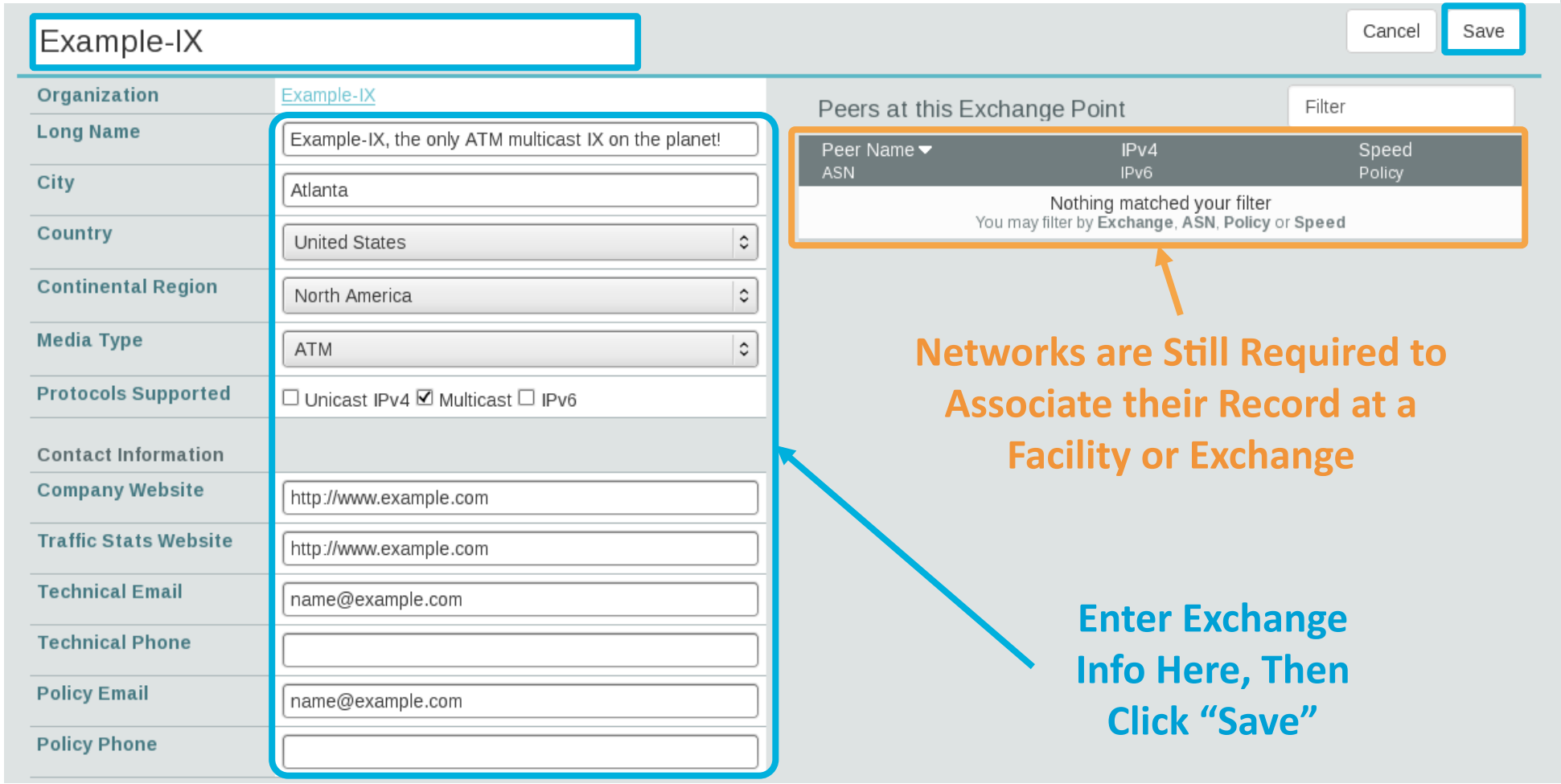
The PeeringDB Board hereby expresses its enormous appreciation to Richard A. Turkbergen (née Steenbergen) for his creation and donation of PeeringDB to the organization.

Questions?

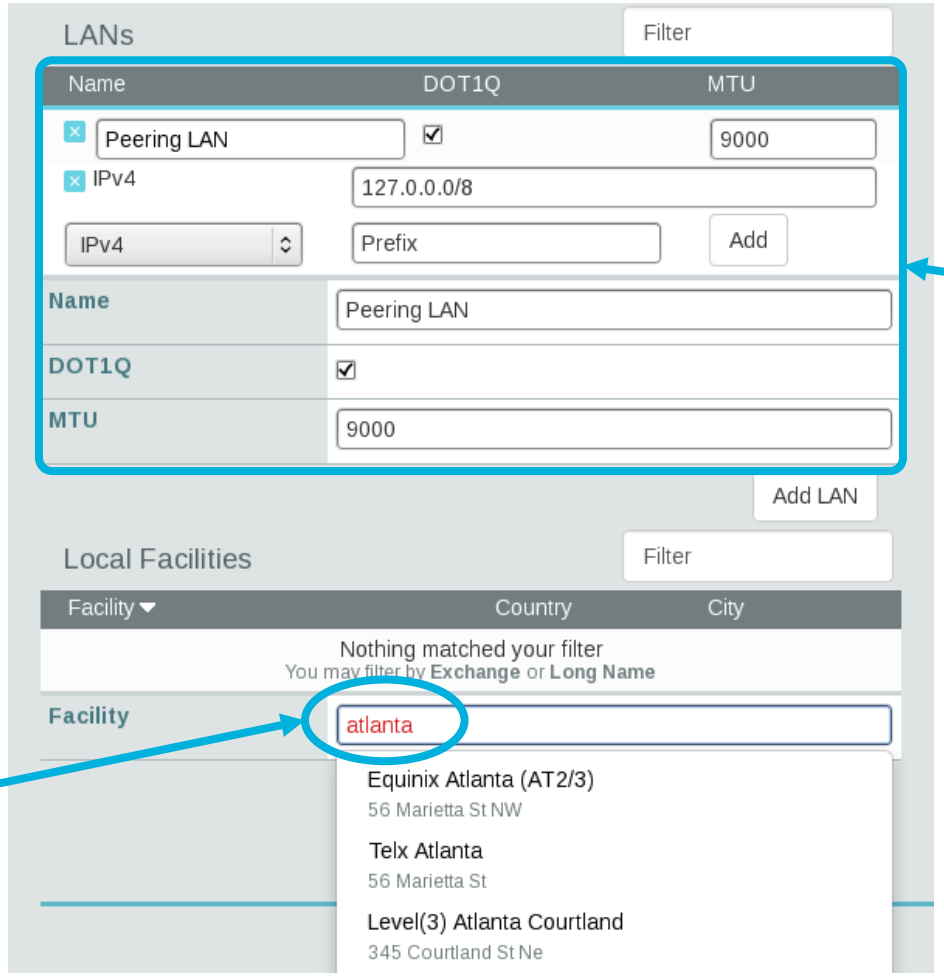
Adding a New Exchange to Your Organization



Editing Your Exchange Record



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