



PeeringDB

PeeringDB Workshop

How is PeeringDB organised? // Track 1

arnold@peeringdb.com

Agenda

- Please always use the tutorial DB at <https://tutorial.peeringdb.com>
- What is PeeringDB?
- Organisation
 - History
 - Association
 - Committees



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, Network Operators, and Carriers.”

Why should I have a record in PeeringDB?

- As a network a PeeringDB record makes it easy for other networks to find you, and helps you to establish peering / interconnection
- As a colocation provider a PeeringDB record creates visibility, and helps you to attract additional networks and IXes
- As an IX a PeeringDB record provides information about your participants, and colocations where your service is available
- As a Carrier a PeeringDB record creates visibility, and helps you to attract new customers
- Provides a user-friendly GUI and a powerful API for automatisation



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
 - 516 addresses subscribed to the Governance mailing list (as of October 9, 2025)
 - Governance list is at <http://lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov>
 - More information available at <http://gov.peeringdb.com/>

Governance

- The Members
 - Any corporation, limited liability company, partnership or other legal business entity may be a Member
 - One (virtual / online) member meeting per year
- The Board
 - Sets strategic directions and overlooks financial issues
 - Half of the board is elected every year
- The Committees
 - Responsible for the day to day work
 - Admin Committee
 - Operations Committee
 - Outreach Committee
 - Product Committee

Board of Directors and Officers



Shawna Bong – Secretary and Treasurer
(Officer)



Aaron Hughes – President
(Term Expires 2026)



Isabel Odida – Director
(Term Expires 2027)



Alex Corso – Director
(Term Expires 2027)



Livio Morina – Vice President
(Term Expires 2027)



Job Snijders – Director
(Term Expires 2026)

Committees

Admin Committee	Operations Committee	Outreach Committee	Product Committee
<ul style="list-style-type: none">• Manage administration of user accounts and PeeringDB records• Answer support tickets• Cleansing and completion of PeeringDB records <p>Leads: Chriztoffer Hansen (Chair) and Peter Helmenstine (Vice Chair) Contact: admincom@lists.peeringdb.com</p>	<ul style="list-style-type: none">• Manage PeeringDB infrastructure <p>Leads: Job Snijders (Chair) and Aaron Hughes (Vice Chair) Contact: pdb-ops@lists.peeringdb.com</p>	<ul style="list-style-type: none">• Manage marketing and social media• Develop and maintain presentations, workshops and webinars• Coordinate presentations and attendance at events <p>Leads: Ben Ryall (Chair) Contact: outreachcom@lists.peeringdb.com</p>	<ul style="list-style-type: none">• Manage roadmap and development priorities• Ask for input from the community on desired features• Write SoWs to solicit bids to complete requested features <p>Leads: Jack Carrozzo (Chair) and Matt Griswold (Vice Chair) Product Manager: Leo Vegoda Contact: productcom@lists.peeringdb.com</p>

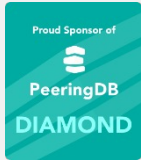
Product Development Workflow

- All issues tracked using GitHub at <https://github.com/peeringdb/peeringdb/issues>
 - Anyone can open a feature requests or file a bug report
 - Open and transparent process for product development
 - Workflow is at <http://docs.peeringdb.com/workflow/>
- Product Committee issue process
 - Evaluate and prioritize the requests
 - Request a quote for development costs
 - Request budget from the board
 - Manage implementation and scheduling
- Your input is needed on features and testing
 - <https://beta.peeringdb.com> has the latest code
 - https://docs.peeringdb.com/release_notes/

1 Decide No due date ⌚ Last updated 3 days ago Issues under Decide queue. Issues are kept in Decide while the Product Committee discusses the issue. Next milestone is "Consensus Reached"	<div><div></div></div> <div>12% complete 128 open 19 closed</div> <div>Edit Close Delete</div>
2 Consensus Reached No due date ⌚ Last updated 3 days ago Issues that are in the Consensus queue. When a decision is made abo...(more)	<div><div></div></div> <div>0% complete 6 open 0 closed</div> <div>Edit Close Delete</div>
3 Consensus Finalized No due date ⌚ Last updated 1 day ago When an issue is at milestone "Consensus reached" PC members have t...(more)	<div><div></div></div> <div>100% complete 0 open 2 closed</div> <div>Edit Close Delete</div>
3a Needs Implementation discussion No due date ⌚ Last updated 6 days ago	<div><div></div></div> <div>0% complete 5 open 0 closed</div> <div>Edit Close Delete</div>
4 Ready for Implementation No due date ⌚ Last updated 1 day ago Last milestone before milestone "Next release". The predecessor is "Consensus Finalized".	<div><div></div></div> <div>0% complete 22 open 0 closed</div> <div>Edit Close Delete</div>
Next Release No due date ⌚ Last updated 5 days ago	<div><div></div></div> <div>80% complete 3 open 12 closed</div> <div>Edit Close Delete</div>

Become a PeeringDB Sponsor!

- Diamond Sponsorship - \$25,000 / year



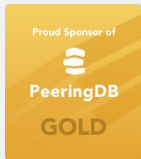
- Limited to 2 sponsors
- Very large logo on top line of Sponsors page with URL
- Diamond Sponsor badge display on all records
- Social media promotion

- 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

Microsoft Diamond Sponsor

Organization	Microsoft Corporation
Also Known As	8068 8069
Company Website	
Primary ASN	8075

DE-CIX Frankfurt Platinum Sponsor

Organization	DE-CIX Management GmbH
Long Name	Deutscher Commercial Internet Exchange
City	Frankfurt
Country	DE
Continental Region	Europe
Media Type	Ethernet



Proud Sponsor of

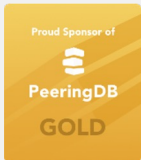
PeeringDB  Gold

Contact sponsorship@peeringdb.com for sponsorship info!

Thank you to our sponsors!



Microsoft



DE-CIX Academy

PeeringDB Workshop

Learning the Ropes // Track 2

arnold@peeringdb.com

PeeringDB




Where

Agenda

- Please always use the tutorial DB at <https://tutorial.peeringdb.com>
- Registering
 - Yourself
 - Your organization
- Adding information
 - About your organization
 - About your network / Autonomous System
 - Adding your peering policy
- Internet Exchanges and Facilities
 - Add where your network is present
- Retrieve information
 - Present what you have learned about another network

Registering

 **PeeringDB**

Search here for a network, IX, or facility.

[Advanced Search](#) [Legacy Search](#)

[Registeror](#) [Login](#)

english)

The Interconnection Database

Join. Search. Grow your network.



PeeringDB is a freely available, user-maintained, database of networks, and the go-to location for interconnection data. The database facilitates the global interconnection of networks at Internet Exchange Points (IXPs), data centers, and other interconnection facilities, and is the first stop in making interconnection decisions.

The database is a non-profit, community-driven initiative run and promoted by volunteers. It is a public tool for the growth and good of the Internet. Join the community and support the continued development of the Internet.

Learn more [about](#) PeeringDB or [register](#).

Most Recent Updates

Exchanges

- [Giganet IXN](#)
2 hours ago
- [IndyIX](#)
6 hours ago
- [American IX²](#)  ★★
8 hours ago
- [American IX](#)  ★★
18 hours ago
- [TJ-IX](#)
1 days ago

Networks

- [DES Teknologi Informasi](#) (45302)
5 minutes ago
- [YXEIX Route Servers](#) (46210)
49 minutes ago
- [Data Arta Sedaya](#) (141674)
50 minutes ago
- [INDONESIA DIAL NETWORK](#) (153805)
1 hours ago
- [Dewata Solusi Teknologi](#) (140012)
2 hours ago

Facilities

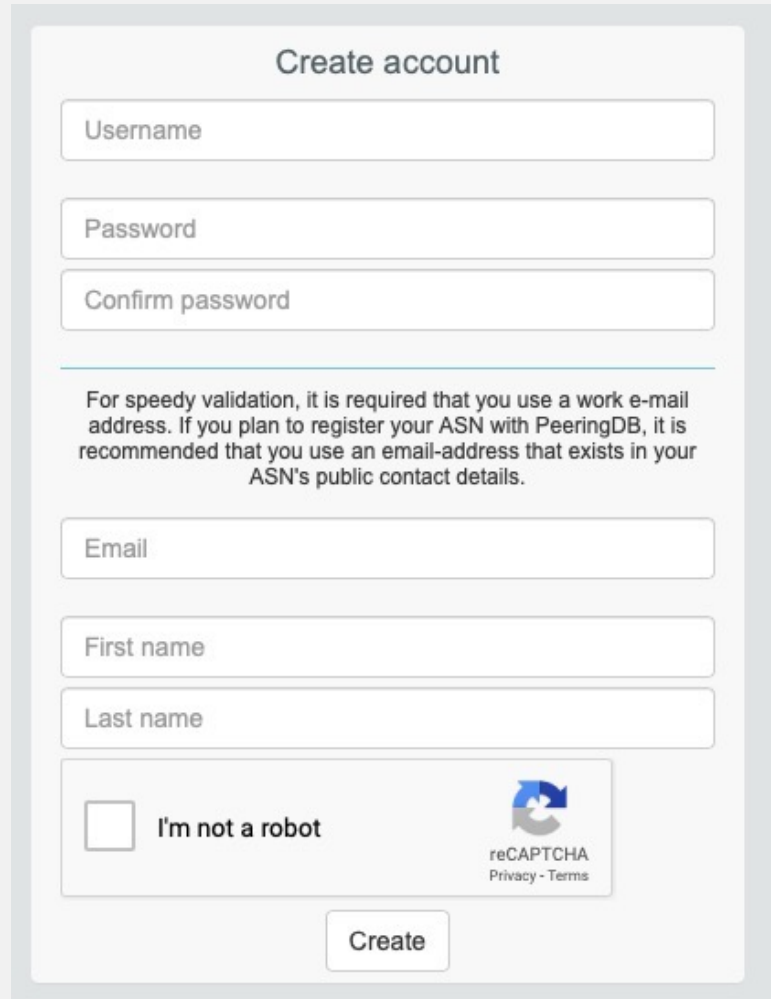
- ★ [1 Federal - Western MA](#)
8 hours ago
- ★ [Technology Park - S. Burlington, VT](#)
8 hours ago
- ★ [State Tower - Syracuse, NY](#)
8 hours ago
- ★ [Lightboard Northeast](#)
8 hours ago
- [AtlasEdge DC NB8](#)
2 days ago

Carriers

- [Falcore Australia Pty Ltd](#)
2 days ago
- [TNS-plus](#)
3 days ago
- [TOWARDEX](#)
7 days ago
- [Ufinet Panama](#)
8 days ago
- [Massive Networks](#)
20 days ago

© 2004-2025 PeeringDB [About](#) [Global System Statistics](#)

Registering



The screenshot shows the 'Create account' form on the PeeringDB website. It includes input fields for Username, Password, Confirm password, Email, First name, and Last name. Below these fields is a reCAPTCHA section with a checkbox labeled 'I'm not a robot' and a reCAPTCHA logo with links for 'Privacy' and 'Terms'. A 'Create' button is at the bottom right of the form.

Create account

Username

Password

Confirm password

For speedy validation, it is required that you use a work e-mail address. If you plan to register your ASN with PeeringDB, it is recommended that you use an email-address that exists in your ASN's public contact details.

Email

First name

Last name

☐ I'm not a robot

reCAPTCHA
Privacy - Terms

Create

- Choose a username
- Password must be at least 10 characters long
- Use a **real work e-mail address**
 - Ideally the one you registered the ASN with
- And put in your first and last name
- You receive a confirmation email
- Click on the link in the email

Registering

The screenshot displays the PeeringDB registration process in three distinct sections:

- Select language:** A dropdown menu currently shows 'English', with a 'Set language preference' button below it.
- Email Confirmation:** A message in red text states: 'Before getting access to any other features, you need to confirm your email address.' Below this, it says 'We have sent you a message containing the confirmation link.' and includes a 'Resend Confirmation Email' button.
- Change email address:** A section with a blue underline. It contains a note: 'For speedy validation, it is required that you use a work e-mail address. If you plan to register your ASN with PeeringDB, it is recommended that you use an email-address that exists in the ASN's public contact details.' Below the note are input fields for 'Email' and 'Password'.

- You can choose a language
 - If your language is not available yet and you want to help – let us know!
 - Not all languages are fully translated
- To re-send the confirmation email, click the button
- Further options here:
 - Change email address
 - Change password
- You have to click the link in the email to continue!

Registering

The screenshot shows the PeeringDB registration interface. At the top, there is a button labeled 'Set language preference'. Below it, a message states 'You have confirmed your email address!'. The main section is titled 'Affiliate with organization'. It contains three instructions: '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.', and 'To register a new facility or exchange organization, please enter the organization name below (ASN is optional)'. There are two input fields: 'ASN' with the value '645XX' and 'Organization' with the value 'Some Name'. Below these fields is an 'Affiliate' button. At the bottom, there is a note: 'In case the RiR entry cannot be retrieved for your ASN, please contact support@peeringdb.com for assistance.' and a section titled 'Existing affiliations'.

- Once your email is confirmed:
- Get affiliated with an organization
 - Your company
 - Which is already in PeeringDB
- Or is new to PeeringDB
 - Can be an ISP – enter your AS number!
 - A Datacenter
 - An Internet Exchange
 - A Carrier

Registering

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

In case the RIR entry cannot be retrieved for your ASN, please contact support@peeringdb.com for assistance.

Existing affiliations


Your affiliation with [ACME Alternative Hosting](#) has been approved.

- Once approved, you can edit your organization
- Click on your organization to continue...

Your Organization

- Enter information about your organization – click on edit

ACME Alternative Hosting

Some of the data on this page is incomplete, please update the fields marked with  to improve data quality.

Website 	
Address 1 	
Address 2	
Location 	
Country Code 	
Notes	

Facilities

Filter

Name ▼

Country
City

Nothing matched your filter
You may filter by Name, Country or City

Networks

Filter

Name ▼

ASN

[ACME Alternative Hosting](#)

64501

Exchanges

Filter

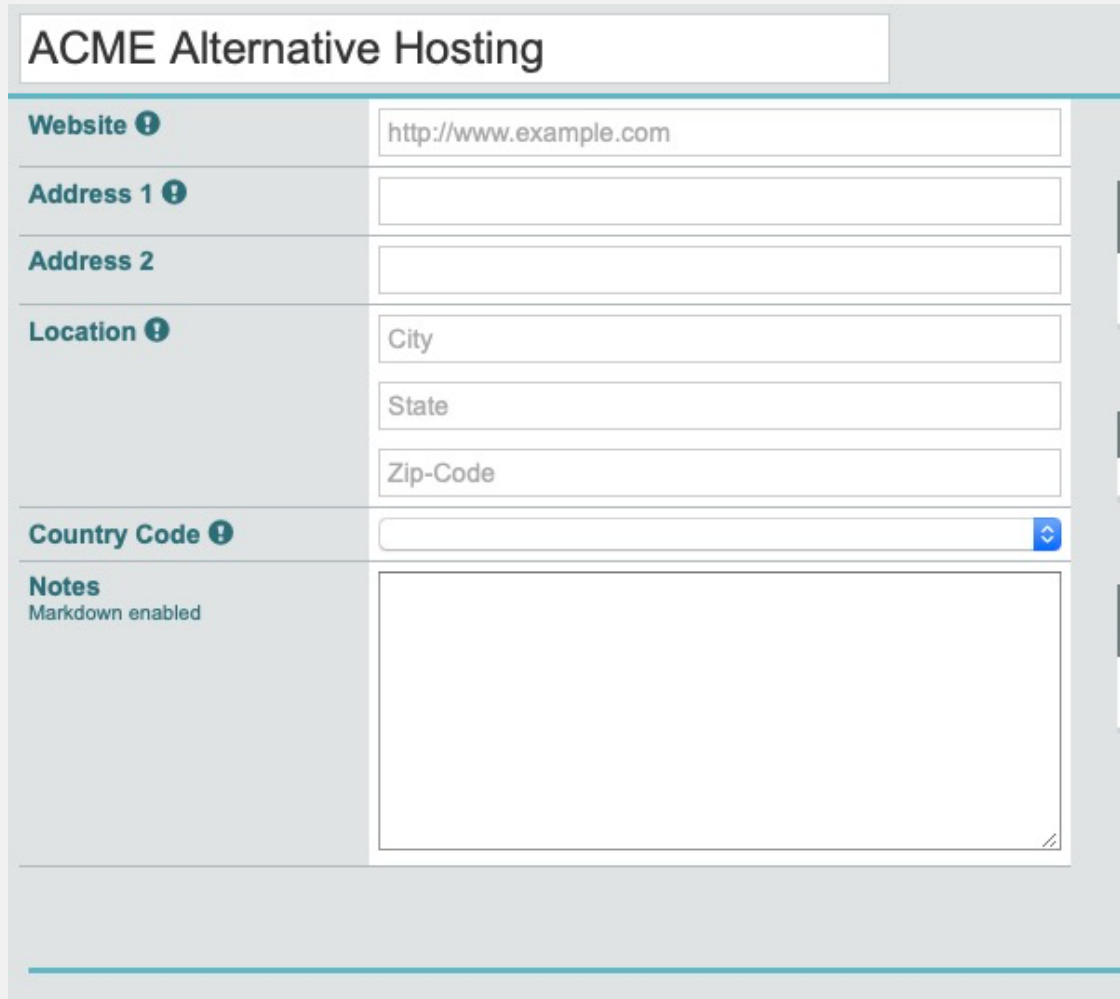
Name ▼

Country
City

Nothing matched your filter
You may filter by Name, Country or City

Edit

Your Organization

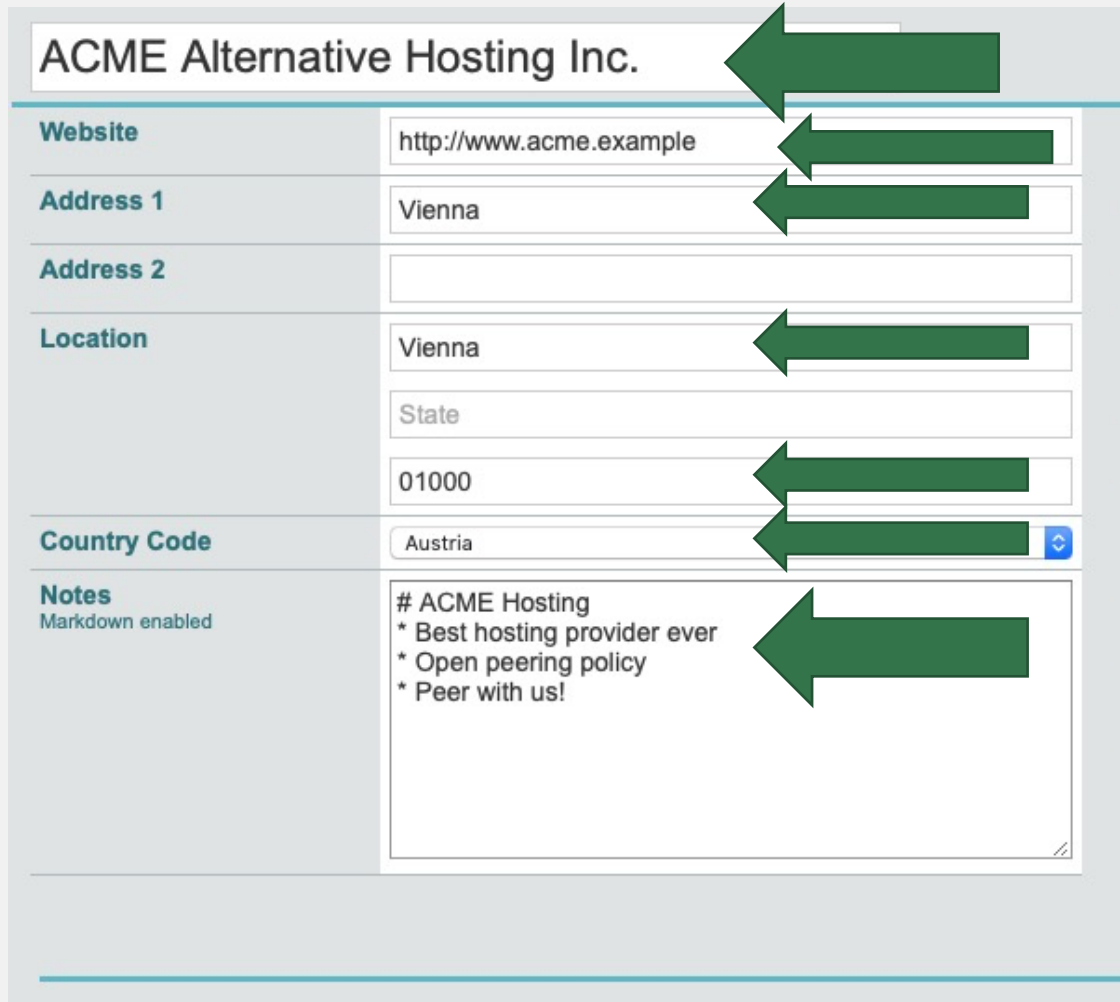


The screenshot shows a web form titled "ACME Alternative Hosting". The form is divided into several sections, each with a label and an information icon (i). The sections are:

- Website**: A text input field containing "http://www.example.com".
- Address 1**: An empty text input field.
- Address 2**: An empty text input field.
- Location**: Three stacked text input fields labeled "City", "State", and "Zip-Code".
- Country Code**: A dropdown menu with a blue arrow icon on the right.
- Notes**: A large text area with the label "Notes" and the text "Markdown enabled" below it.

- Lets focus on the left side of the screen
- Enter the required information (use either your Sheet or your real company information)
- Use the notes field to promote your company as a peer (if you want to)
 - You can use Markdown (see handout for URL)

Your Organization



ACME Alternative Hosting Inc.

Website

Address 1

Address 2

Location

Country Code


Notes
Markdown enabled

ACME Hosting
* Best hosting provider ever
* Open peering policy
* Peer with us!

- You can also change your company name
- Enter some information and click “Save”

Network Information

- Now it gets interesting
- With your basic company information now in, let's add information about your network
- Click on your network name – beside your AS number on the right side

 **PeeringDB** [Advanced Search](#) asmith

ACME Alternative Hosting Inc. Edit

Website	http://www.acme.example
Address 1	Vienna
Address 2	
Location	Vienna 01000
Country Code	Austria
Notes	ACME Hosting <ul style="list-style-type: none">• Best hosting provider ever• Open peering policy• Peer with us!

Facilities

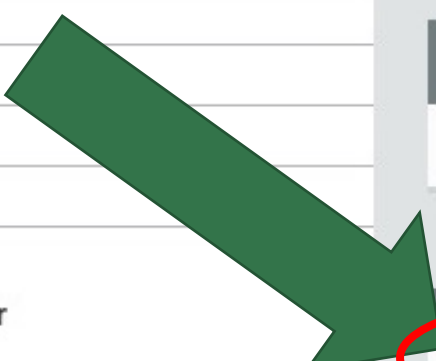
Filter

Name ▼	Country	City
Nothing matched your filter You may filter by Name, Country or City		

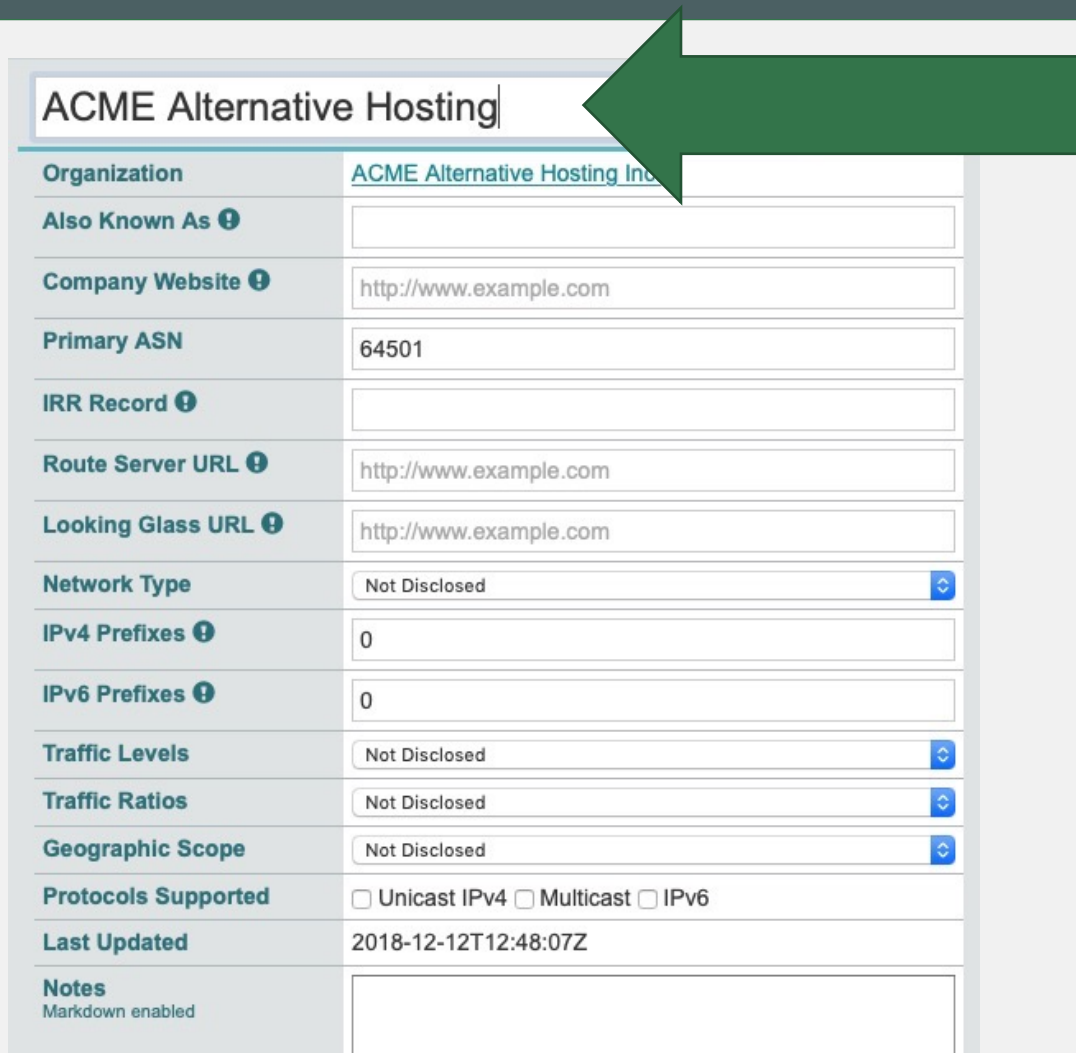
Networks

Filter

Name ▼	ASN
ACME Alternative Hosting	64501



Network Information



ACME Alternative Hosting

Organization	ACME Alternative Hosting Inc
Also Known As ⓘ	
Company Website ⓘ	http://www.example.com
Primary ASN	64501
IRR Record ⓘ	
Route Server URL ⓘ	http://www.example.com
Looking Glass URL ⓘ	http://www.example.com
Network Type	Not Disclosed
IPv4 Prefixes ⓘ	0
IPv6 Prefixes ⓘ	0
Traffic Levels	Not Disclosed
Traffic Ratios	Not Disclosed
Geographic Scope	Not Disclosed
Protocols Supported	<input type="checkbox"/> Unicast IPv4 <input type="checkbox"/> Multicast <input type="checkbox"/> IPv6
Last Updated	2018-12-12T12:48:07Z
Notes	Markdown enabled

- Again, click on „Edit“ (top right)
- Here is a lot of information to enter
- Most is self-explanatory
- But some is not that obvious
 - Title here is your **network name**
 - Does not have to be the same as your company name
 - Some companies run more than one network (aka ASN)
 - Or use a different name for their networking business

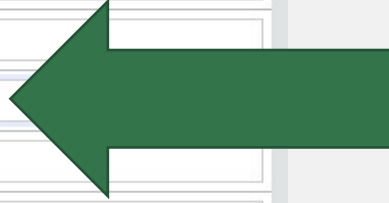
Network Information

ACME Alternative Hosting	
Organization	ACME Alternative Hosting Inc
Also Known As ⓘ	
Company Website ⓘ	http://www.example.com
Primary ASN	64501
IRR Record ⓘ	
Route Server URL ⓘ	http://www.example.com
Looking Glass URL ⓘ	http://www.example.com
Network Type	Not Disclosed
IPv4 Prefixes ⓘ	0
IPv6 Prefixes ⓘ	0
Traffic Levels	Not Disclosed
Traffic Ratios	Not Disclosed
Geographic Scope	Not Disclosed
Protocols Supported	<input type="checkbox"/> Unicast IPv4 <input type="checkbox"/> Multicast <input type="checkbox"/> IPv6
Last Updated	2018-12-12T12:48:07Z
Notes Markdown enabled	

- Use this field for an alternative name
- Or an „old“ name if you changed names
- Or leave it empty
- Company website – remember this is PeeringDB
 - Put in the URL your peers should see
- AS number – your main one
 - If you have more, you can add a 2nd entry later
 - This field will probably be removed

Network Information

ACME Alternative Hosting	
Organization	ACME Alternative Hosting Inc.
Also Known As ⓘ	ACME Hosting
Company Website ⓘ	http://www.acme.example
Primary ASN	64501
IRR Record ⓘ	AS64501:AS-ACME-HOSTING
Route Server URL ⓘ	http://www.example.com
Looking Glass URL ⓘ	http://www.example.com
Network Type	Not Disclosed
IPv4 Prefixes ⓘ	0
IPv6 Prefixes ⓘ	0
Traffic Levels	Not Disclosed
Traffic Ratios	Not Disclosed
Geographic Scope	Not Disclosed
Protocols Supported	<input type="checkbox"/> Unicast IPv4 <input type="checkbox"/> Multicast <input type="checkbox"/> IPv6
Last Updated	2018-12-12T12:48:07Z
Notes Markdown enabled	



- IRR Record
 - Your AS-Macro (also called AS-Set)
 - You have registered in *IRR* database
 - Of your RIR (Regional Internet Registry)
- Route Server URL - if you have one
- Looking Glass URL

Network Information


ACME Alternative Hosting	
Organization	ACME Alternative Hosting Inc.
Also Known As ⓘ	ACME Hosting
Company Website ⓘ	http://www.acme.example
Primary ASN	64501
IRR Record ⓘ	AS64501:AS-ACME-HOSTING
Route Server URL ⓘ	http://www.example.com
Looking Glass URL ⓘ	http://www.example.com
Network Type	Content
IPv4 Prefixes ⓘ	3
IPv6 Prefixes ⓘ	3
Traffic Levels	100-1000Mbps
Traffic Ratios	Mostly Outbound
Geographic Scope	Regional
Protocols Supported	<input checked="" type="checkbox"/> Unicast IPv4 <input type="checkbox"/> Multicast <input checked="" type="checkbox"/> IPv6
Last Updated	2018-12-12T12:48:07Z
Notes Markdown enabled	

- Fill in the rest
 - Either according to your sheet
 - Or choose your real network
- In „Notes“ you can use Markdown
 - You can give your peers free text information
 - Like details about your peering policy
 - More about your peering policy further down below

Peering Information

PeeringDB Configuration

Allow IXP Update ?	<input type="radio"/>
IXP Update Tools	<button>Preview</button> <button>Postmortem</button>



Peering Policy Information

Peering Policy	
General Policy	Open
Multiple Locations	Not Required
Ratio Requirement	No
Contract Requirement	Not Required

- Now we add information about Peering!
- Important: Allowing IXP Update helps maintaining DB accuracy
- So please allow if you trust your IXPs

Peering Information

PeeringDB Configuration

Allow IXP Update ?	<input type="radio"/>
IXP Update Tools	<div>Preview Postmortem</div>

Tools for the IXP Update

Peering Policy Information

Peering Policy	
General Policy	Open
Multiple Locations	Not Required
Ratio Requirement	No
Contract Requirement	Not Required

- **Preview** lets you see what will happen with the next import
- **Postmortem** shows what happened at the last import
- Use the dropdowns to publish your peering policy
- In case of selective/restrictive you may use the notes field above

Contact Information

Contact Information

Role ▼	Name Visibility	Phone E-Mail
<input checked="" type="checkbox"/> Abuse	Abuse Desk Public	abuse@acme.example

Role	NOC
Name	Network Operations
Email	noc@acme.example
Phone	+43 1 2341668
Visibility	Users

Add Contact

- **Very important!**
- To inform peers how to contact you
 - In a number of roles
- You can add as many as you need
 - „Add Contact“ to store and next
 - Public, for logged in users, or private
- You do not have to fill out all fields
- But please:
keep contact info up to date
- Do not forget to „save“ when complete

Review what you have entered

- You now have entered:
 - Information about your organization, like:
 - Address
 - Website
 - Free form text
 - Network information
 - Your AS number
 - Number of prefixes you announce,
 - Traffic info
 - Peering information, like peering policy
 - Contacts for your peers
- Please check if everything is correct

Add peering at an IXP

Public Peering Exchange Points

Exchange ▼ ASN	IPv4 IPv6	Speed RS Peer
Nothing matched your filter You may filter by Exchange, ASN or Speed		
Exchange	<input type="text" value="VIX AT Vienna Internet Exchange"/>	
Local ASN	<input type="text" value="64501"/>	
IPv4	<input type="text" value="192.203.0.222"/>	
IPv6	<input type="text" value="2001:7f8:30:0:1:1:6:fbf5"/>	
Speed (mbit/sec)	<input type="text" value="1000"/>	
RS Peer	<input checked="" type="checkbox"/>	

- Click on „Edit“ at the top right again
- Enter an IXP name in Exchange
 - And select the IXP you are connected to from the list
- Enter speed, IPv4 and IPv6
- Select “RS Peer” if you are peering with the route server
- **Click on „Add Exchange Point“!**
- And then click on „save“.

Presence at a datacenter

Private Peering Facilities

Filter

Facility ▼	Country
ASN	City
<input checked="" type="checkbox"/> ITandTEL TechCenter Linz 64501	AT Linz

Facility

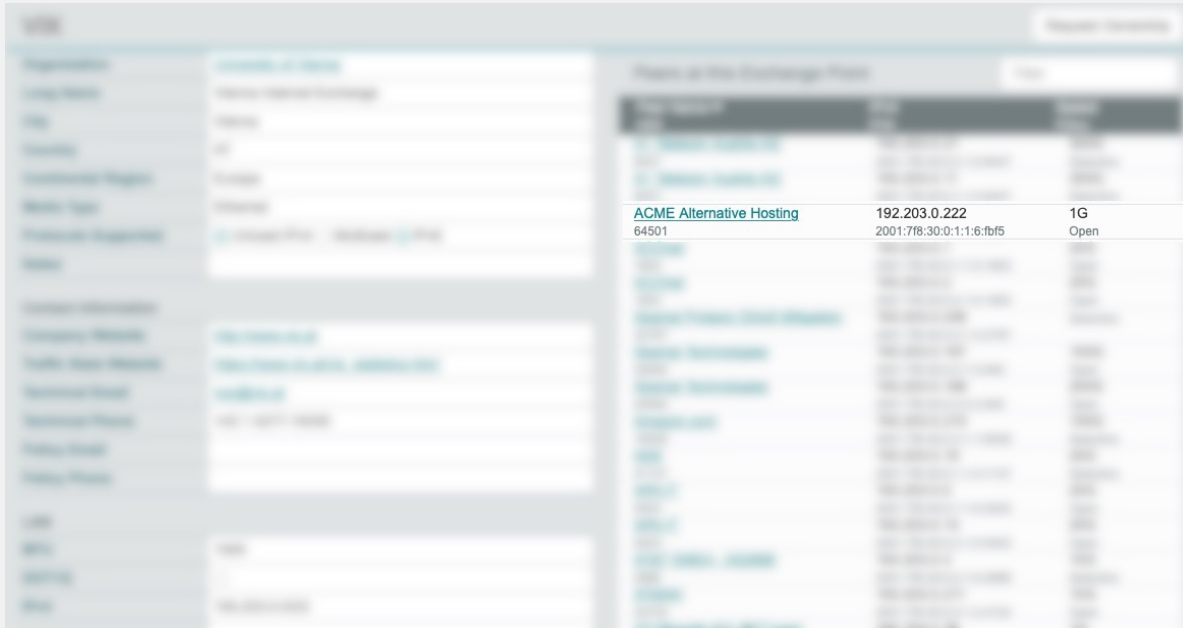
Klagenfurt

- Kelag Klagenfurt
Arnulfplatz 2
- Klagenfurt Stadtwerke
Gabelsbergerstrasse 50a

- Now again click on „edit“
- Scroll down and enter a city or datacenter name in „Facility“
- Select the facility you are in from the list and....
- ...click on „Add Facility“
- When you have added all facilities click on „Save“

Check what you have entered

- Click on the name of the IXP you entered
- Find your entry in the list
- Do the same for the facilities you are in

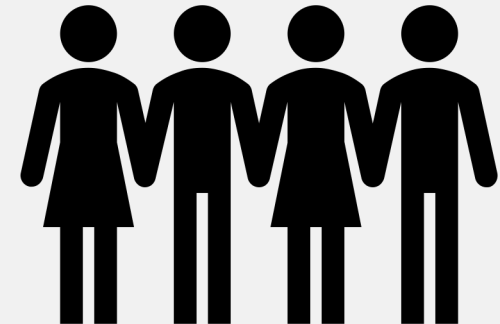


The screenshot shows the PeeringDB interface. On the left is a sidebar with navigation links. The main area displays a table of Internet eXchange Points (IXPs). One entry, 'ACME Alternative Hosting', is highlighted in blue. Below the table, there are sections for 'Facilities' and 'Peering Information'.

IXP Name	IP Address	Capacity	Status
ACME Alternative Hosting	192.203.0.222	1G	Open
64501	2001:7f8:30:0:1:1:6:bf5		

Now lets see if others find you...

- Write your AS number on a sheet of paper
- All stand up and form a circle
- Give the person opposite to you your AS number
- and receive their AS number
- Use PeeringDB to learn about
 - Their organization
 - Their network



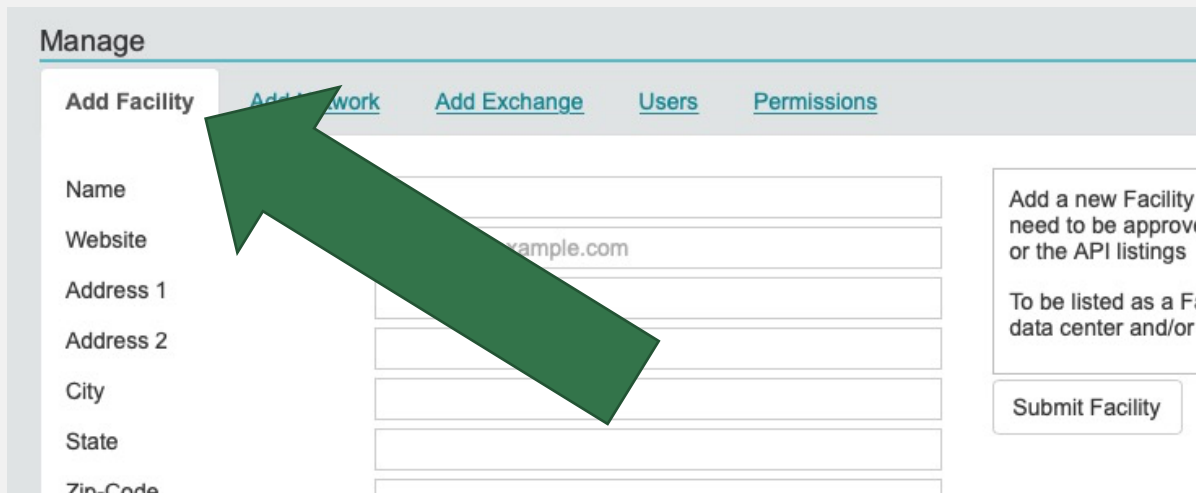
What to find out

- You should answer the following questions:
 - What is the main business of their organization / network
 - What is their peering policy
 - What is the size of the networks in terms of
 - Traffic
 - Prefixes
 - Where are they present
 - IXPs
 - Facilities
 - Would you peer with them?
 - According to your own peering policy
 - Why? / Why not?

Present what you have learned

- Present to the group what you have learned
- About the organization and network you have received
- The person who has entered the information checks
 - If everything is correct
 - If anything important is missing

Add your facility



The screenshot shows the 'Manage' section of the PeeringDB interface. A green arrow points to the 'Add Facility' button, which is the first option in a list of links: 'Add Facility', 'Add Network', 'Add Exchange', 'Users', and 'Permissions'. Below these links is a form with fields for 'Name', 'Website' (with 'example.com' as a placeholder), 'Address 1', 'Address 2', 'City', 'State', and 'Zip-Code'. To the right of the form, there is a text box stating 'Add a new Facility need to be approve or the API listings' and 'To be listed as a Fa data center and/or', followed by a 'Submit Facility' button.

- If you run your **own** datacenter
- Why not add it to PeeringDB?
- Go to your organization page
- Scroll down to „Manage“
- Choose „Add Facility“

Add your facility

Manage

Add Facility

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

Name	<input type="text" value="ACME Alternative Datacenter"/>
Website	<input type="text" value="http://www.acme.example"/>
Address 1	<input type="text" value="Old Road 301"/>
Address 2	<input type="text"/>
City	<input type="text" value="Vienna"/>
State	<input type="text"/>
Zip-Code	<input type="text" value="A-1001"/>
Country	<input type="text" value="Austria"/>
CLLI Code	<input type="text"/>
NPA-NXX	<input type="text"/>

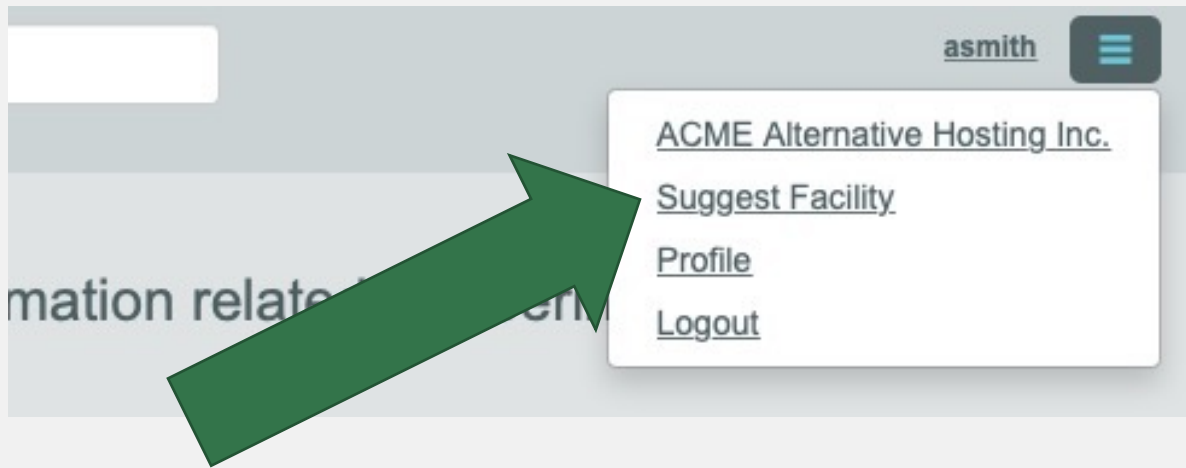
Add a new Facility to your Organization. Note that the newly created Facility will need to be approved by PeeringDB staff before it will appear in the search results or the API listings

To be listed as a Facility in PeeringDB we would expect that you offer colocation, data center and/or meet-me-room services to the public.

- Fill in applicable fields
- CLLI and NPA-NXX: deprecated
- Click „Submit Facility“
- Entry will be reviewed
- And added or declined

Suggesting a facility

- For facilities **you do not own**
- **But you are in or know about**
- Choose „Suggest Facility“
- Will be reviewed by PeeringDB staff



Suggesting a facility

Name	<input type="text" value="ACME Alternative Datacenter"/>
Website	<input type="text" value="http://www.acme.example"/>
Address 1	<input type="text" value="Old Road 301"/>
Address 2	<input type="text"/>
City	<input type="text" value="Vienna"/>
State	<input type="text"/>
Zip-Code	<input type="text" value="A-1001"/>
Country	<input type="text" value="Austria"/>
CLLI Code	<input type="text"/>
NPA-NXX	<input type="text"/>

Suggest Facility to be added to the database. Your suggestion will be reviewed by the PeeringDB Administration Committee. It will then either be finalized and entered into the database, or declined. No further action is required on your part.

In order to be approved we would expect that the suggested Facility offers colocation, data center and/or meet-me-room services to the public.

[Suggest Facility](#)

- Fill in applicable fields
- CLLI and NPA-NXX: deprecated
- Click „Suggest Facility“
- Entry will be reviewed
- And added or declined

Adding users

- You do not have to be the only person working with PeeringDB
- Other users from your organization may also register!
- Users can be „admin“ or „member“
 - The first user automatically will be an „admin“
- Administrators are allowed to edit all fields (of your organization)
- Members rights can be as restrictive or as open as you need them to be
- Let's try it out
- Request affiliation with the organization you just presented

Affiliate with an organization

The screenshot shows the PeeringDB user interface. At the top, there is a search bar and a user profile icon labeled 'asmith'. A green star with the number '1' is placed over the user profile icon. Below the search bar, there is a 'Select language' dropdown menu set to 'English' and a 'Set language preference' button. A confirmation message states 'You have confirmed your email address!'. The main section is titled 'Affiliate with organization'. It contains three instructions: '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.', and 'To register a new facility or exchange organization, please enter the organization name below (ASN is optional)'. Below these instructions are two input fields: 'ASN' and 'Organization'. A green star with the number '2' is placed over the 'ASN' field, and a green star with the number '3' is placed over the 'Organization' field. At the bottom right of the form is an 'Affiliate' button, with a green star and the number '4' placed over it.

- Go to your profile page (1)
- Request affiliation
 - Either use the AS number (2)
 - Or name and select (3)
 - Click on „Affiliate“ (4)
- Admin of organization gets an email if there is one. Otherwise PeeringDB support
- Checks, and either approves or denies

Approve affiliation requests

- Go to your organization page
- Scroll down to the „manage“ section
- Click on the „Users“ tab
- Either approve or deny new users

Manage

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

Users requesting affiliation

Name	Email	Date	
Wolfgang Tremmel wtremmel	Confirmed wolfgang.tremmel@de-cix.net Yes	2018, Dec. 14	Approve Deny

Users in Organization

Name	Email	Group	
Adam Smith asmith	asmith@garf.de	admin	Remove

Save

User administration

Manage

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

Users requesting affiliation

Name	Email	Date
User	Confirmed	

Currently no users requesting affiliation with ACME Alternative Hosting Inc.

Users in Organization

Name	Email	Group	
User			
Adam Smith asmith	asmith@garf.de	admin	Remove
Wolfgang Tremmel wtremmel	wolfgang.tremmel@de-cix.net	member	Remove
			Save

Manage

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

Here you can grant permissions to regular members of your organization. Administrative users are not listed here as they have access to everything by default. Additionally, entities that are pending review cannot be permissioned out to users, and will not appear in the entity list.

Wolfgang Tremmel <wolfgang.tremmel@de-cix.net> wtremmel	Create	Update	Delete	
<div>Any Exchange</div> <div>Any Facility</div> <div>Any Network</div> <div>Facility - ACME Alternative Datacenter</div> <div>Network - ACME Alternative Hosting</div> <div>Organization and all Entities it owns</div>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Add
			Save	

- Users can be admins or members
- Use the dropdown to change
- For members – you can add permissions
- Use the permissions tab to grant create, update and/or delete to selected of any entities
- Do not forget to „save“ your changes

Removing Users

- Be sure you are logged in as an admin
- Go to your organization page
- Scroll down to the „manage“ section
- Click on the „Users“ tab
- Click on „Remove“ on the right side
- And do not forget to „save“
- The user is only deleted from your organization
- If you want to remove a user completely, email PeeringDB support

Manage

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

Users requesting affiliation


Name	Email	Date
User	Confirmed	

Currently no users requesting affiliation with ACME Alternative Hosting Inc.


Users in Organization


Name	Email	Group	
User			
Adam Smith asmith	asmith@garf.de	admin	Remove
Wolfgang Tremmel wtremmel	wolfgang.tremmel@de-cix.net	member	Remove


Save



More removing...

- If you leave an internet exchange:
 - please remove your peering IP addresses
- Go to your network page
- Click on „Edit“ (top right)
- Click on the  beside the entry of the exchange
- Confirm and do not forget to „Save“



Public Internet Exchange Points		Filter
Exchange AS	IPv4 IPv6	Speed RS Peer
 VIX 64501	192.203.0.222 2001:7f8:30:0:1:1:6:fbf5	1000 <input checked="" type="checkbox"/>
Exchange	<input type="text"/>	
Local ASN	64501	
IPv4	<input type="text"/>	
IPv6	<input type="text"/>	
Speed (mbit/sec)	0	
RS Peer	<input type="checkbox"/>	
<input type="button" value="Add Exchange Point"/>		

More removing...

- Facilities, Contacts, all the same
- Click on „Edit“
- Click on the remove symbol at the entry
- Click on “Save”

Contact Information

Role ▼	Name Visibility
<input checked="" type="checkbox"/> Abuse	Abuse Desk
	Public

Role Abuse

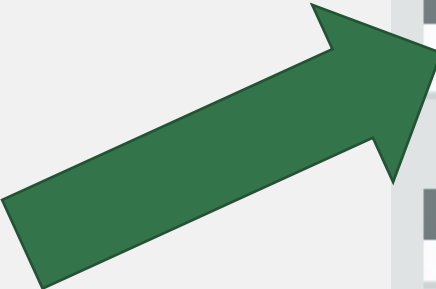
Private Peering Facilities

Facility ▼ ASN
<input checked="" type="checkbox"/> ITandTEL TechCenter Linz 64501
<input checked="" type="checkbox"/> Klagenfurt Stadtwerke 64501

Facility

Removing – more information

- Objects are only *marked deleted*, but stay in the DB
- *You cannot simply re-add them*
- Please contact support@peeringdb.com if you need help



Facilities			Filter
Name ▼	Country	City	
<input checked="" type="checkbox"/> ACME Alternative Datacenter	Austria	Vienna	

Networks		Filter
Name ▼	ASN	
<input checked="" type="checkbox"/> ACME Alternative Hosting	64501	



PeeringDB

The PeeringDB API

Workshop // Track 3

arnold@peeringdb.com

Agenda

- Please always use the tutorial DB at <https://tutorial.peeringdb.com>
- Introduction
- jq
- JSON
- HTML Operations
- Record Types
 - Basic Records
 - Derived Records

Introduction

- Why API (Application Programming Interface)?
 - The GUI is nice for human beings
 - Automation needs structured data
- Makes it easy to integrate PeeringDB in your environment

- Light-weight and flexible command-line processor
- awk, sed and grep equivalent to JSON data
- A jq program is a filter
 - Needs an input and produces an output
 - Looks weird sometimes, like „add/length“ produces average of an array
 - Simplest filter is „.“ which is the identity operator
 - Can be used to pretty print JSON output
- See <https://stedolan.github.io/jq/manual> for an introduction
- EX: `curl -sG https://peeringdb.com/api/org --data-urlencode fields=id | jq -c '[.data[] | .id] | length'`

JSON

- Open standard file format
- Short for JavaScript Object Notation
- Filenames use the extension .json
- Language independent data format
- Basic data types
 - Number
 - String
 - Boolean
 - Array
 - Object
 - null

```
{
  "firstName": "John",
  "lastName": "Smith",
  "isAlive": true,
  "age": 27,
  "address": {
    "streetAddress": "21 2nd Street",
    "city": "New York",
    "state": "NY",
    "postalCode": "10021-3100"
  },
  "phoneNumbers": [
    {
      "type": "home",
      "number": "212 555-1234"
    },
    {
      "type": "office",
      "number": "646 555-4567"
    },
    {
      "type": "mobile",
      "number": "123 456-7890"
    }
  ],
  "children": [],
  "spouse": null
}
```

Basics

- In general <https://peeringdb.com/api/OBJ>
 - OBJ is case insensitive
 - So called endpoint: /api/OBJ
- Output always fits in one object
 - meta is optional
 - data always is an array

```
{  
  meta:  
    {  
      status:  
      message:  
    }  
  data:  
    [  
      {},  
      {}  
    ]  
}
```

Authentication

- Authentication is needed for
 - Accessing non-public point of contact (poc) data
 - Updating information via GUI or API
- Methods
 - username/password with MFA (mandatory as of July, 1st, 2025)
 - API key (only method for accessing the API)
- Guest access does not need any authentication
- Examples
 - `curl -sG https://username:password@peeringdb.com/api/poc?net_id=19273`
 - `curl -sG https://www.peeringdb.com/api/net/19273 -H 'Authorization: Api-Key example.valid_apikey'`

API key

- Secret token for identifying and authenticating a user
 - A user is an individual or an organization
 - Allows to authenticate a client w/o providing username/password
- The individual API is created from your <https://www.peeringdb.com/profile>
- The organization API is created from the “Manage” tab on your org level
 - See slide “User administration”
- Detailed information at https://docs.peeringdb.com/howto/api_keys/

Operations

- All HTML operations are supported
 - GET
 - Requests a representation of the specified resource
 - POST
 - Used to submit an entity to the specified resource
 - PUT
 - Replaces all current representations of the target resource with the request payload
 - DELETE
 - Deletes the specified resource

GET

- GET
 - Multiple objects
 - Endpoint /api/OBJ
 - Single object
 - Endpoint /api/OBJ/id

Optional URL parameters for GET

- limit
 - Integer value
 - Limits to n rows in the result set
- skip
 - Integer value
 - Skips n rows in the result set
- depth
 - Integer value
 - Nested sets will be loaded
 - See Nesting slide

Optional URL parameters for GET

- fields
 - String value
 - comma separated list of field names
 - only matching fields will be returned in the data
- since
 - Integer value
 - Retrieve all objects updated since specified time
 - Unix timestamp in seconds
- *fieldname*
 - Integer or string value
 - Queries for fields with matching value

Nested Data / Depth

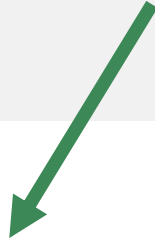
- Of type OBJ_set
- Example: *net_set* will hold network objects
- Depth (for endpoint /api/OBJ)
 - 0: don't expand anything (default)
 - 1: expand all first level sets to ids
 - 2: expand all first level sets to objects
- Depth (for endpoint /api/OBJ/id)
 - 0: don't expand anything
 - 1-4: expand all sets and related objects according to level of depth specified
 - 2 is default

Nested Data / Depth

<https://peeringdb.com/net/947?pretty>



<https://peeringdb.com/net/947?pretty&depth=0>



```
{
  "meta": {},
  "data": [
    {
      "id": 947,
      "org_id": 1187,
      "name": "DE-CIX Frankfurt Route Servers",
      "aka": "DE-CIX",
      "website": "https://fra.de-cix.net",
      "asn": 6695,
      "looking_glass": "https://lg.de-cix.net",
      "route_server": "https://www.de-cix.net/en/locations/germany/frankfurt/routeserver-gu",
      "irr_as_set": "AS-DECIX",
      "info_type": "Route Server",
      "info_prefixes4": 240000,
      "info_prefixes6": 50000,
      "info_traffic": "1 Tbps+",
      "info_ratio": "Balanced".
    }
  ]
}
```

```
{
  "meta": {},
  "data": [
    {
      "id": 947,
      "org_id": 1187,
      "org": {
        "id": 1187,
        "name": "DE-CIX Management GmbH",
        "website": "https://de-cix.net",
        "notes": "",
        "net_set": [
          947,
          5547,
          6978,
          6979,
          8383,
          8703,
          8919,
          8920,
          9840,
          9841,
          10018,
          13190,
          13251,
          19331,
          20739
        ],
        "fac_set": [],
        "ix_set": [
          31,
          74,
          248,
          804,
          1131,
          1149,
          1150,
          1214,
          1249,
          1277,
          2531
        ],
        "address1": "Lindleystr. 12",

```

Query modifiers

- numeric fields
 - __lt: less than
 - __lte: less than equal
 - __gt: greater than
 - __gte: greater than equal
 - __in: value inside set of values (comma separated)
- string fields
 - __contains: field value contains this value
 - __startswith: field value starts with this value
 - __in: value inside set of values (comma separated)

POST

- Used to create an object
- Endpoint /api/OBJ
- Required parameters
 - Depending on OBJ
 - For *org* you need the *name*
 - For *fac*, *ix*, *net* you need the *org_id*
 - for *fac* you need the *name*
 - For *ix* you need the *name* and *prefix*
 - For *net* you need the *asn*
- Example
 - `curl -sn -X POST -H "Content-Type: application/json" -d @22106.json \`
`https://tutorial.peeringdb.com/api/org`

```
{  
  "name": "Org-22106"  
}
```

File 22106.json

PUT

- Used to edit object
- Endpoint /api/OBJ/id
- Updates data in OBJ/id
- You have to send all the data, not just the change
- Example
 - `curl -sn -X PUT -H "Content-Type: application/json" -d @22106.json \`
`https://tutorial.peeringdb.com/api/org/22114`
- Operation of PUT is idempotent

```
{  
    "name": "Org-22106",  
    "address1": "23 Mulholland Drive",  
    "city": "Los Angeles",  
    "country": "US"  
}
```

File 22106.json

DELETE

- Used to delete objects
- Endpoint /api/OBJ/id
- Example
 - `curl -sn -X DELETE -H "Content-Type: application/json" \`
`https://tutorial.peeringdb.com/api/org/22114`

Object Types

- Basic Objects
 - org, carrier, fac, ix, net, poc, as_set
- Derived Objects
 - carrierfac, ixfac, ixlan, ixpfx, netixlan, netfac

Basic Objects

- org
 - Root object for fac, ix, net
 - Holds information about organisation
- carrier
 - Describes a carrier record
 - More usefull information are in the derived record carrierfac
- fac
 - Describes a facility / colocation record
 - More useful information are in the derived record netfac
- ix
 - Describes an Internet Exchange
 - More useful information are in the derived records ixlan, ixpfx and netixlan
- net
 - Describes a network / ASN
 - More useful information are in netfac and netixlan
- poc
 - Describes various role accounts (point of contact)
 - Currently only for net objects
- as_set
 - Array of all AS-SETs corresponding to a network / ASN

Derived Objects

- carrierfac
 - Describes the presence of a carrier in a facility
- ixfac
 - Describes the presence of an IX in a facility
- ixlan (historically)
 - Describes the LAN of an IX
 - One IX may have exactly one ixlan
 - Will go away in PeeringDB 3.0
- ixpfx
 - Describes the IP range (IPv4 and IPv6) for an ixlan
 - One ixlan may have multiple ixpfx, both for IPv4 and IPv6

Derived Objects (cont.)

- netixlan
 - Describes the presence of a network at an IX
- netfac
 - Describes the presence of a network at a facility

GUI to API // org

- <https://peeringdb.com/org/1187>
- Add pretty and depth for human friendly output
- <https://peeringdb.com/api/org/1187>
- https://peeringdb.com/api/fac?org_id=1187
- https://peeringdb.com/api/net?org_id=1187
- https://peeringdb.com/api/ix/org_id=1187

DE-CIX Management GmbH Platinum Sponsor

Website	https://de-cix.net
Address 1	Lindleystr. 12
Address 2	
Location	Frankfurt am Main, Hessa, 60314
Country Code	DE
Notes	

org

Edit

Facilities

Filter

Name	Country City
No filter matches. You may filter by Name , Country or City .	

fac

Filter

Networks

Name	ASN
DE-CIX Academy Educational Network	196610
DE-CIX Dallas Route Servers	62499
DE-CIX Dusseldorf Route Servers	56890
DE-CIX Frankfurt Route Servers	6695
DE-CIX Hamburg Route Servers	43252
DE-CIX Istanbul Route Servers	20715
DE-CIX Lisbon Route Servers	43729
DE-CIX Madrid Route Servers	48793
DE-CIX Management GmbH	51531
DE-CIX Marseille Route Servers	20717
DE-CIX Munich Route Servers	47228
DE-CIX New York Route Servers	63034
DE-CIX Palermo Route Servers	25083
DE-CIX R&D Measurement	205530
DE-CIX VoIP	57769


net

Filter

Exchanges

Name	Country City
DE-CIX Dallas	United States of America Dallas
DE-CIX Dusseldorf	Germany Dusseldorf
DE-CIX Frankfurt	Germany Frankfurt

ix

 PeeringDB

2025-10-10

Workshop LU-CIX, Luxembourg, Luxembourg

71

GUI to API // fac

- <https://peeringdb.com/fac/752>
- Add pretty and depth for human friendly output
- <https://peeringdb.com/api/fac/752>
- https://peeringdb.com/api/ixfac?fac_id=752
- https://peeringdb.com/api/netfac?fac_id=752

euNetworks Colocation Hamburg

Organization	euNetworks Group
Website	http://www.euNetworks.com
Address 1	Wendenstraße 408
Address 2	
Location	Hamburg, , 20537
Country Code	DE
Geocode	Updated geocode data for this entity will be obtained shortly
CLLI Code	
NPA-NXX	
Notes	

Local Exchanges			Filter
Exchange ▼	Long Name	Networks	
DE-CIX Hamburg	Deutscher Commercial Internet Exchange Hamburg	104	
ECIX-HAM	European Commercial Internet Exchange Hamburg	60	

Networks		Filter
Peer Name ▼	ASN	
euNetworks Group	13237	
LWL.com GmbH	50629	
OMCnet Internet Service GmbH	15388	
Vodafone Global Network	1273	
Vodafone Kabel Deutschland GmbH	31334	

netfac

ixfac

GUI to API // net

- <https://peeringdb.com/net/13251>
- Add pretty and depth for human friendly output
- <https://peeringdb.com/api/net/13251>
- https://peeringdb.com/api/poc?net_id=13251
- https://peeringdb.com/api/netixlan?net_id=31
- OR <https://peeringdb.com/api/netixlan?asn=196610>
- https://peeringdb.com/api/netfac?net_id=13251
- OR https://peeringdb.com/api/netfac?local_asn=196610

DE-CIX Academy Educational Network Platinum Sponsor

net

Some of the data on this page is incomplete, please update the fields marked with ? to improve data quality.

Organization	DE-CIX Management GmbH
Also Known As	DE-CIX
Company Website	http://www.de-cix.net/academy
Primary ASN	196610
IRR as-set/route-set	AS196610:AS-DECIX-ACADEMY
Route Server URL ?	
Looking Glass URL ?	
Network Type	Educational/Research
IPv4 Prefixes	1
IPv6 Prefixes	5
Traffic Levels	0-20 Mbps
Traffic Ratios	Balanced
Geographic Scope	Regional
Protocols Supported	<input checked="" type="radio"/> Unicast IPv4 <input type="radio"/> Multicast <input type="radio"/> IPv6
Last Updated	2019-02-15T12:19:05Z
Notes	<ul style="list-style-type: none">• We only peer with the route servers• Any peering request you send will be used for educational purposes

PeeringDB Configuration

Allow IXP Update ☒

Peering Policy Information

Peering Policy ?	
General Policy	Open
Multiple Locations	Not Required
Ratio Requirement	No
Contract Requirement	Not Required

Contact Information

Role ▼	Name	Phone E-Mail
Abuse	DE-CIX Abuse Department	abuse@de-cix.net
NOC	DE-CIX 24/7 NOC	+49 69 1730 902 11

netixlan Edit

Public Peering Exchange Points Filter

Exchange ▼ ASN	IPv4 IPv6	Speed RS Peer
DE-CIX Dusseldorf DE-CIX Dusseldorf	185.1.58.105 2001:7f8:9e:0:3:2:0:1	100M ⊙
DE-CIX Frankfurt DE-CIX Frankfurt	80.81.196.61 2001:7f8::3:2:0:1	1G ⊙
DE-CIX Hamburg DE-CIX Hamburg	80.81.203.11 2001:7f8:3d:0:3:2:0:1	100M ⊙
DE-CIX Munich DE-CIX Munich Peering LAN	80.81.202.115 2001:7f8:44:0:3:2:0:1	100M ⊙
DE-CIX New York DE-CIX New York	206.82.104.220 2001:504:36:0:3:2:0:1	100M ⊙
MSK-IX Moscow MSK-IX peering network	195.208.210.43 2001:7f8:20:101::210:43	⊙

Private Peering Facilities Filter

Facility ▼ ASN	Country City
Interxion Frankfurt (FRA1-12) 196610	Germany Frankfurt

netfac

poc

GUI to API // ix

- <https://peeringdb.com/ix/31>
- Add pretty and depth for human friendly output
- <https://peeringdb.com/api/ix/31>
- https://peeringdb.com/api/ixlan?ix_id=31
- https://peeringdb.com/api/ixpfx?ixlan_id=31
- https://peeringdb.com/api/ixfac?ix_id=31
- https://peeringdb.com/api/netixlan?ix_id=31

DE-CIX Frankfurt Platinum Sponsor

Organization	DE-CIX Management GmbH
Long Name	Deutscher Commercial Internet Exchange
City	Frankfurt
Country	DE
Continental Region	Europe
Media Type	Ethernet
Protocols Supported	<input checked="" type="radio"/> Unicast IPv4 <input type="radio"/> Multicast <input checked="" type="radio"/> IPv6
Notes	For peering with the DE-CIX Frankfurt route servers, please see: DE-CIX Frankfurt Route Servers

Contact Information	ix
Company Website	https://fra.de-cix.net
Traffic Stats Website	https://www.de-cix.net/en/locations/germany/frankfurt/statistics
Technical Email	support@de-cix.net
Technical Phone	+49 69 1730 902 11
Policy Email	sales@de-cix.net
Policy Phone	+49 69 1730 902 12

LANs Filter		
Name	DOT1Q	MTU
DE-CIX Frankfurt Peering LAN	<input type="radio"/>	1500
<input type="radio"/> Enable IX-F Import		ixlan Preview

IPv4	80.81.192.0/21	ixpfx
IPv6	2001:7f8::/64	
Local Facilities Filter		
Facility ▼	Country	City
COLT DC Frankfurt	Germany	Frankfurt
Digital Realty FRA (Lyoner Strasse)	Germany	Frankfurt am Main
Digital Realty FRA (Wilhelm-Fay-	Germany	Frankfurt am

Peers at this Exchange Point Filter

Peer Name ASN	IPv4 IPv6	Speed ▲ Policy
Vodafone Germany DE-CIX Frankfurt Peering LAN 3209	80.81.192.117 2001:7f8::c89:0:3	600G Selective
Vodafone Germany DE-CIX Frankfurt Peering LAN 3209	80.81.193.117 2001:7f8::c89:0:4	600G Selective
1&1 Versatel Deutschland GmbH DE-CIX Frankfurt Peering LAN 8881	80.81.193.80 2001:7f8::22b1:193:80	500G Selective
1&1 Versatel Deutschland GmbH DE-CIX Frankfurt Peering LAN 8881	80.81.195.188 2001:7f8::22b1:0:1	500G Selective
Akamai Technologies DE-CIX Frankfurt Peering LAN 20940	80.81.192.28 2001:7f8::51cc:0:28	400G Open
Amazon.com DE-CIX Frankfurt Peering LAN 16509	80.81.194.152 2001:7f8::407d:0:1	400G Selective
Amazon.com DE-CIX Frankfurt Peering LAN 16509	80.81.195.152 2001:7f8::407d:0:2	400G Selective
Cloudflare DE-CIX Frankfurt Peering LAN 13335	80.81.194.180 2001:7f8::3417:0:1	400G Open
Facebook Inc DE-CIX Frankfurt Peering LAN	80.81.194.40 2001:7f8::80a6:0:1	400G Selective

netixlan

ixfac

Basic records in detail // ix and org

```
"data": [
  {
    "id": 31,
    "org_id": 1187,
    "name": "DE-CIX Frankfurt",
    "name_long": "Deutscher Commercial Internet Exchange",
    "city": "Frankfurt",
    "country": "DE",
    "region_continent": "Europe",
    "media": "Ethernet",
    "notes": "For peering with the DE-CIX Frankfurt route servers, please see:\n\n[DE",
    "proto_unicast": true,
    "proto_multicast": false,
    "proto_ipv6": true,
    "website": "https://fra.de-cix.net",
    "url_stats": "https://www.de-cix.net/en/locations/germany/frankfurt/statistics",
    "tech_email": "support@de-cix.net",
    "tech_phone": "+49 69 1730 902 11",
    "policy_email": "sales@de-cix.net",
    "policy_phone": "+49 69 1730 902 12",
    "net_count": 805,
    "created": "2010-07-29T00:00:00Z",
    "updated": "2018-06-19T11:53:46Z",
    "status": "ok"
  }
]
```

```
"data": [
  {
    "id": 1187,
    "name": "DE-CIX Management GmbH",
    "website": "https://de-cix.net",
    "notes": "",
    "address1": "Lindleystr. 12",
    "address2": "",
    "city": "Frankfurt am Main",
    "country": "DE",
    "state": "Hessia",
    "zipcode": "60314",
    "created": "2006-11-01T23:37:13Z",
    "updated": "2017-07-02T00:03:27Z",
    "status": "ok"
  }
]
```

Basic records in detail // fac

```
"data": [  
  {  
    "id": 752,  
    "org_id": 8540,  
    "org_name": "euNetworks Group",  
    "name": "euNetworks Colocation Hamburg",  
    "website": "http://www.euNetworks.com",  
    "clli": "",  
    "rencode": "",  
    "npanxx": "",  
    "notes": "",  
    "net_count": 5,  
    "latitude": null,  
    "longitude": null,  
    "created": "2010-07-29T00:00:00Z",  
    "updated": "2019-09-25T22:00:34Z",  
    "status": "ok",  
    "address1": "Wendenstra\u00dfe 408",  
    "address2": "",  
    "city": "Hamburg",  
    "country": "DE",  
    "state": "",  
    "zipcode": "20537"  
  }  
]
```

Basic records in detail // net and poc

```
"data": [  
  {  
    "id": 13251,  
    "org_id": 1187,  
    "name": "DE-CIX Academy Educational Network",  
    "aka": "DE-CIX",  
    "website": "http://www.de-cix.net/academy",  
    "asn": 196610,  
    "looking_glass": "",  
    "route_server": "",  
    "irr_as_set": "AS196610:AS-DECIX-ACADEMY",  
    "info_type": "Educational/Research",  
    "info_prefixes4": 1,  
    "info_prefixes6": 5,  
    "info_traffic": "0-20 Mbps",  
    "info_ratio": "Balanced",  
    "info_scope": "Regional",  
    "info_unicast": true,  
    "info_multicast": false,  
    "info_ipv6": true,  
    "notes": "* We only peer with the route servers\n* Any peering request you send will be used for educational purposes",  
    "policy_url": "",  
    "policy_general": "Open",  
    "policy_locations": "Not Required",  
    "policy_ratio": false,  
    "policy_contracts": "Not Required",  
    "created": "2017-04-20T19:44:59Z",  
    "updated": "2019-02-15T12:19:05Z",  
    "status": "ok"  
  }  
]
```

```
{  
  "id": 25826,  
  "net_id": 13251,  
  "role": "Policy",  
  "visible": "Users",  
  "name": "Wolfgang Tremmel",  
  "phone": "",  
  "email": "academy@de-cix.net",  
  "url": "",  
  "created": "2018-07-24T09:26:21Z",  
  "updated": "2018-07-24T09:26:21Z",  
  "status": "ok"  
},
```


Basic records in detail // as_set

```
{
  "meta": {},
  "data": [
    {
      "196610": "AS196610:AS-DECIX-ACADEMY",
      "262150": "AR-EPEC2-LACNIC",
      "393223": "AS-CWICA",
      "32780": "AS-HSI",
      "196621": "AS196621:AS-CUSTOMERS",
      "327698": "AS-327698",
      "32787": "AS-PROLE",
      "327700": "AFRINIC",
      "32798": "RS-USCS-ALL",
      "5467": "AS-MIPT",
      "32806": "AS27822",
      "32808": "AS-UTBB",
      "42": "AS-PCH",
      "262189": "LACNIC",
      "46": "AS-RUTGERS",
      "262195": "AS-ITXAR1",
      "393269": "AS-DAILYMOTIONUS",
      "57": "AS-NLG-PARTICIPANTS",
      "327740": "ORG-TA38-AFRINIC",
      "62": "AS-C1",
      "393280": "AS393280 in Level3",
      "72": "AS-SLB",
      "327754": "AS-RMS-Powertronics",
      "327693": "AfrinIC::AS-ECHOSP/RS-ECHOSP",
      "81": "AS-MCDEM@PTM"
```

```
{
  "meta": {},
  "data": [
    {
      "42": "AS-PCH"
    }
  ]
}
```

<https://peeringdb.com/api/as-set/42>

<https://peeringdb.com/api/as-set>

Derived records in detail // ixfac, ixlan and ixpfx

```
"data": [  
  {  
    "id": 41,  
    "ix_id": 26,  
    "fac_id": 63,  
    "created": "2010-07-29T00:00:00Z",  
    "updated": "2016-03-14T20:33:57Z",  
    "status": "ok"  
  }  
]
```

```
{  
  "id": 31,  
  "ix_id": 31,  
  "name": "DE-CIX Frankfurt Peering LAN",  
  "descr": "",  
  "mtu": 1500,  
  "dot1q_support": false,  
  "rs_asn": 0,  
  "arp_sponge": null,  
  "created": "2010-07-29T00:00:00Z",  
  "updated": "2018-07-08T10:22:35Z",  
  "status": "ok"  
}
```

```
{  
  "id": 312,  
  "ixlan_id": 31,  
  "protocol": "IPv6",  
  "prefix": "2001:7f8::/64",  
  "created": "2011-06-22T00:00:00Z",  
  "updated": "2016-03-14T21:57:28Z",  
  "status": "ok"  
}
```

Derived records // netfac and netixlan

```
{
  "id": 30451,
  "name": "Interxion Frankfurt (FRA1-13)",
  "city": "Frankfurt",
  "country": "DE",
  "net_id": 13251,
  "fac_id": 58,
  "local_asn": 196610,
  "created": "2018-07-24T09:25:24Z",
  "updated": "2018-07-24T09:25:24Z",
  "status": "ok"
}
```

```
{
  "id": 163,
  "net_id": 5,
  "ix_id": 31,
  "name": "DE-CIX Frankfurt: DE-CIX Frankfurt Peering LAN",
  "ixlan_id": 31,
  "notes": "",
  "speed": 20000,
  "asn": 3303,
  "ipaddr4": "80.81.193.183",
  "ipaddr6": "2001:7f8::ce7:0:2",
  "is_rs_peer": true,
  "created": "2010-07-29T00:00:00Z",
  "updated": "2019-01-18T11:19:59Z",
  "status": "ok"
},
```