



Peering **DB**

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Agenda

- **PeeringDB Introduction**
- Organization Update
- PDB 1.0 vs. PDB 2.0
- Automation Examples

PeeringDB Overview

- PeeringDB is the de facto reference database for peering information on the Internet
- Contains location information and contacts for
 - Networks
 - Exchange points
 - Facilities
- A PeeringDB entry for your network makes it easy for people to find you, and helps you establish peering
- Required for peering with certain networks, for example
 - Apple
 - Facebook
 - Microsoft

Statistics

Networks	8,293
Exchange Points	617
Facilities	1,863
Exchange Point Presences	25,508
Facility Presences	14,444

- Several new registrations from Brazil each week!

Network Example

Company Information

Company Name	Alcatel-Lucent IP Labs		
Also Known As			
Company Website	http://www.alcatel-lucent.com/		
Primary ASN	38016		
IRR Record			
Network Type	Educational/Research		
Approx Prefixes	10		
Traffic Levels	0-20 Mbps		
Traffic Ratios	Balanced		
Geographic Scope	Global		
Looking Glass URL			
Route Server URL			
Notes	Alcatel-Lucent IP Labs for peering R&D.		
Protocols Supported	Unicast IPv4 <input checked="" type="checkbox"/>	Multicast <input type="checkbox"/>	IPv6 <input checked="" type="checkbox"/>
Date Last Updated	2015-08-25 05:12:35 UTC		

Peering Policy Information

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

Contact Information

Role	Contact Name	Telephone	E-Mail
NOC	Greg Hankins, Alastair Johnson		as38016@alcatel-lucent.com
Technical	Greg Hankins, Alastair Johnson		as38016@alcatel-lucent.com

Public Peering Exchange Points

Exchange Point Name	ASN	IP Address	Mbit/sec
DE-CIX Frankfurt	38016	2001:7f8::9480:0:1	1000
DE-CIX Frankfurt	38016	80.81.193.192	1000
DE-CIX New York	38016	2001:504:36::9480:0:1	1000
DE-CIX New York	38016	206.130.10.12	1000

Private Peering Facilities

Facility Name	ASN	City	Country	SONET	Ethr	ATM
325 Hudson Street	38016	New York	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Exchange Point Example

Public Exchange Point Detailed View

Common Name	PTT-SP
Long Name	PTT Sao Paulo
City	Sao Paulo/SP
Country	BR
Continental Region	South America
Media Type	Ethernet
Protocols Supported	Unicast IPv4 <input checked="" type="checkbox"/> Multicast <input type="checkbox"/> IPv6 <input checked="" type="checkbox"/>

Contact Information

Website	http://ptt.br
Traffic Statistics Website	http://ptt.br/trafego/agregado/sp
Technical E-Mail	noc@ptt.br
Technical Phone	+55 11 5509-3550
Policy E-Mail	info@ptt.br
Policy Phone	+55 11 5509 3550

IP Address Blocks

Type	Address Block	Reverse DNS Scan
IPv4 Unicast	187.16.216.0/21	Link
IPv6 Unicast	2001:12f8::/64	Unsupported

Local Facilities

Facility Name	City	Country	Participant Count
No records			

List of Peers at this Exchange Point (Total: 509)

Peer Name	Local ASN	IP Address	IPs	Policy
3E TELECOM	61924		1	Open
3Ws Telecom	263265	187.16.220.133	1	Open
ABASE Telecom	22431	187.16.216.26	2	Open
abcRede Telecom Informatica ME	26162		1	Open
Acer Telecomunicações LTDA	28287	187.16.221.17	2	Open
Acesse Facil Telecomunicações LTDA	262828	187.16.217.93/21	1	Open
AdylNet Telecom	28283	187.16.218.92	4	Open
AFINET SOLUCOES EM TECNOLOGIA DA INFORMACAO	262854	187.16.217.226	1	Open
AGYONET	53113	187.16.218.82/21	1	Open
AiRLIFE COMUNICACAO VIRTUAL LTDA	262952	187.16.219.30	1	Open
Akamai Technologies	20940	187.16.220.8	1	Open
Aki Telecom	52988	187.16.219.63/21	1	Selective
Algar Telecom	16735	187.16.217.48	4	Selective
ALOG DataCenters do Brasil - RJ	26592	187.16.216.42	4	Open
Alonet - Internet sem Fronteiras	262560	187.16.218.63	1	Open
ALPHASYS - SERVIÇOS E COMUNICAÇÃO LTDA	28364	187.16.219.201	3	Selective
ALQG Tecnologia	52550	187.16.218.229	1	Open
Alto Vale Net LTDA	262575	187.16.219.118	1	Open
Amazon.com	16509	187.16.217.20	4	Open
Americana Digital	28289	187.16.216.104	2	Open
Ampernet Telecom	28158	187.16.217.176	2	Open
AmplitudeNet	262721	187.16.218.69	1	Restrictive
Ananke	262446	187.16.216.116	1	Open

Access to PeeringDB

- PDB 1.0 is available at www.peeringdb.com
 - Current production version
- PDB 2.0 is in beta at beta.peeringdb.com
 - New version with many new features

Registration

- If you aren't registered in PeeringDB, you can register at www.peeringdb.com/registration/register.php
- We use basic verification for new accounts and require current whois information
 - Please update your whois information
 - Please register from a company email address
- Many new registrations from Brazil have mismatched information
 - Email address != company email address
 - Email address != whois email address
 - Company name != whois company name

Mailing Lists and Contacts

- PeeringDB Announce: lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-announce
- PeeringDB Governance: lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-gov
- PeeringDB Technical: lists.peeringdb.com/cgi-bin/mailman/listinfo/pdb-tech
- PeeringDB User Discuss: lists.peeringdb.com/cgi-bin/mailman/listinfo/user-discuss
- Support questions: support@peeringdb.com
- Administrative questions: admin@peeringdb.com
- Sponsorship info: sponsorship@peeringdb.com



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Organization

- Until now, PeeringDB has been run by an informal group of admins using donated infrastructure
- PeeringDB needs funds for
 - Operations
 - Software development
 - Feature requests and enhancements
- Many organizations have offered donations to support PeeringDB
- Unable to handle finances or contracts

Elections

- Voting for the PeeringDB initial Board of Directors just finished on November 30th, 2015
- Initial Board of Directors
 - Patrick W. Gilmore (Markley Group) - Vice President
 - Matt Griswold (20C)
 - Aaron Hughes (6connect) - President
 - Arnold Nipper (DE-CIX)
 - Job Snijders (NTT)
- First board meeting takes place today
- Forming United States 501(c)(6) nonprofit corporation
- All governance info is available at gov.peeringdb.com



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PDB 1.0

- Old, auto-generated code, unmaintainable
- Schema issues
 - One network per user, requires multiple registrations
 - No data validation, lots of typos
- MySQL is the only "API"
 - Insecure, doesn't scale
- Exposes contact information to potential spammers



PDB 2.0

- New, clean, shiny Python
- Completely redesigned schema
- RESTful API
- All data is cleaned and validated
- Contact info has permissions
 - Guest login won't see contact details

PDB 2.0

- Everything is permissioned and editable
 - Data centers and IXPs can update their own info
 - Multiple networks can be associated with one login
 - Manage users and permissions
- Documented APIs at docs.peeringdb.com/api_specs
- Many new features planned after release
- Beta version is live now at beta.peeringdb.com



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API Specs

- All operations are supported
 - Read
 - Write
 - Create
- Each data type has an associated tag
 - net
 - org
 - ix

API Specs

- To list all networks:

```
curl -X GET
```

```
https://<username>:<password>@beta.  
peeringdb.com/api/net
```

- To view a specific network:

```
curl -X GET
```

```
https://<username>:<password>@beta.  
peeringdb.com/api/net/20
```

Python Library

- Python seems to be the go-to language for network people
- Very early in life cycle
 - Expect more tests and features in the near future
- More languages and libraries will show up
 - PHP will probably be next
- Available at github.com/peeringdb/peeringdb-py

Python Library

- Advantages
 - Local (not dependent on servers being up, etc.)
 - Custom indexes can be built
 - Custom fields can be added
 - Database engine can be chosen (MySQL, Postgres, SQLite)
- To install:
`pip install peeringdb`

Python Library

- To configure a local database:
`peeringdb configure`
- To keep in sync after configuration:
`peeringdb sync`

Python Library

- To output YAML:

```
peeringdb get net20
```

- To output JSON:

```
peeringdb get -O json net20
```

Django PeeringDB

- PeeringDB models and local synchronization for Django
- Available at github.com/peeringdb/django-peeringdb
- Easy to integrate in a common web framework
- Multiple database options
- Used by `peeringdb-py` to sync data

United IX Example

- Customer signs up
- Backend system queries PeeringDB
- Auto populates IXP Manager data
 - NOC info
 - Max prefix
 - Very easy to generate peering router configuratoin

Companies Using PDB 2.0

- Apple
 - Couchbase database sync
 - Not available to the public
- Netflix
 - Redis database sync
 - Available at github.com/netflix/peeringdb-py



Peering **DB**

Questions?