

PEERINGDB 2.0

MATT GRISWOLD

www.unitedix.net



UNITED

INTERNET
EXCHANGE

GOV.PEERINGDB.COM

New independent non profit organization coming soon!

Running for the PeeringDB Board has no requirements.
Please let us know if you're interested.

- First election will be held from November 15–30

Only membership requirement is having an active account
and being subscribed to the [pdb-gov mailing list](#).

gov.peeringdb.com »

VERSION 1 ISSUES

- Old, generated code, unmaintainable
- Schema issues
 - 1 network per user, etc.
- MySQL the only "API"
 - Insecure; doesn't scale

VERSION 1 ISSUES

- No data validation
- Lots of typos
- Exposed contact information to potential spammers

VERSION 2

- 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

VERSION 2

- **Everything is permissioned and editable**
 - Allows data centers and IXs to update their own info
- **Documented APIs!**
- **New features planned after initial cut-over**
- **Beta version is live now at beta.peeringdb.com**

API SPECS

- Each data type has an associated tag
 - net
 - org
 - ix
 - etc

docs.peeringdb.com/api_specs »

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
```

docs.peeringdb.com/api_specs »

API SPECS

- **All operations are supported**
 - read
 - write
 - create
- See docs for further details

docs.peeringdb.com/api_specs »

PYTHON LIBRARY

- **Very early in life cycle**
 - Expect more tests and features in the near future
- **Python seems to be the go-to language for network people**
- **More languages and libraries will show up, PHP will probably be next**

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
```

github.com/peeringdb/peeringdb-py »

PYTHON LIBRARY

- To configure a local database:

```
peeringdb configure
```

- To keep in sync after configuration:

```
peeringdb sync
```

github.com/peeringdb/peeringdb-py »

PYTHON LIBRARY

COMMAND LINE INTERFACE

- To output YAML:

```
peeringdb get net20
```

- To output JSON:

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

github.com/peeringdb/peeringdb-py »

PYTHON LIBRARY

- To build custom applications with the PeeringDB client library:

```
from peeringdb.client import PeeringDB
pdb = PeeringDB()
```

github.com/peeringdb/peeringdb-py »

DJANGO-PEERINGDB

- Django module
- Easy to integrate in a common web framework
- Multiple database options
- Used by peeringdb-py to sync data

DJANGO-PEERINGDB

- Use cases
 - Very easy to generate peering router config

```
protocol bgp chix_{{tag}} {  
    description "Peer: as{{peer.asn}} ({{peer.descr}})";  
    neighbor {{peer.ip}} as {{peer.asn}};  
    route limit {{peer.max_prefix}};
```


UNITED IX SIGNUP

- Customer signs up, gives ASN, backend system queries and auto populates IXP Manager data
 - NOC info
 - Max prefix

OTHER COMPANIES USING V2 INTERFACE

- **APPLE**
 - Couchbase sync
- **Netflix**
 - Redis sync
 - github.com/netflix/peeringdb-py »

PEERINGDB MAILING LISTS

- 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

PEERINGDB 2.0

MATT GRISWOLD

www.unitedix.net



UNITED

INTERNET
EXCHANGE