# Automating peering@

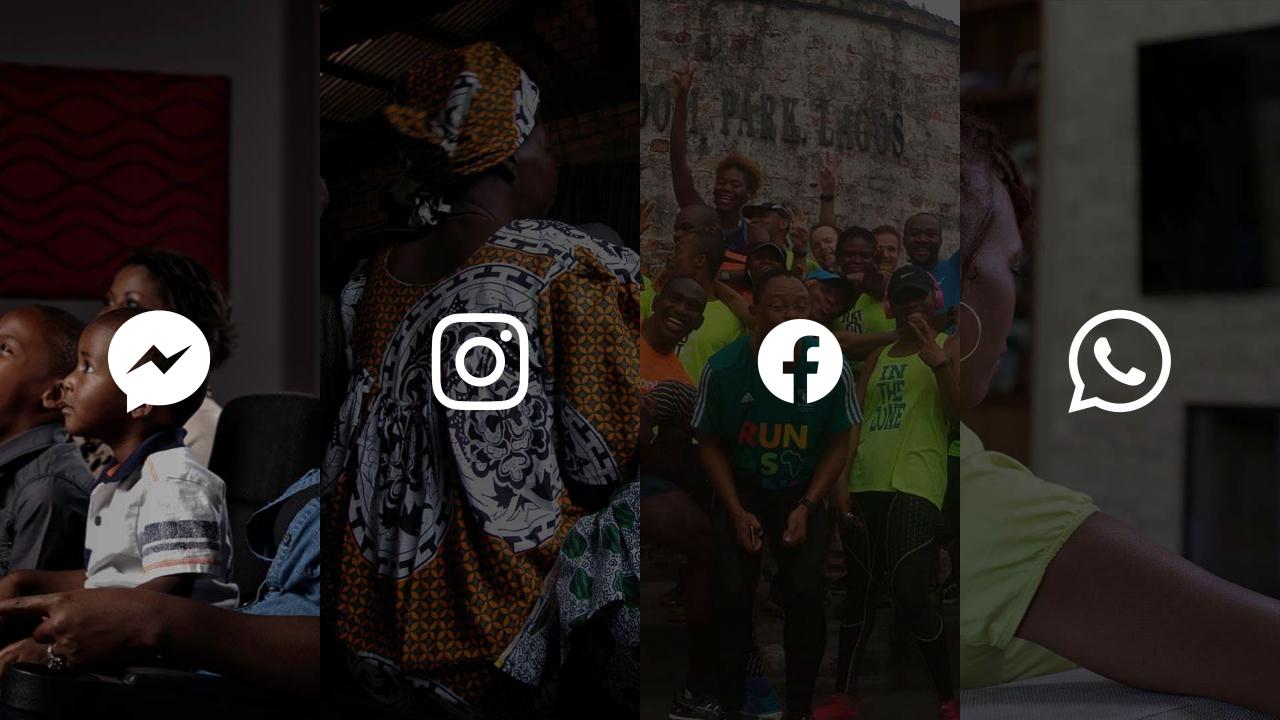
Streamlining and scaling the handling of Peering Requests

Diego Dominguez, Jenny Ramseyer



Agenda

- Peering request inbox: why we automated it
- How to use it
- How automation works
- You can do it too!
- What's next: caching requests



# 500+ emails a month are sent to peering@fb.com

( ) function\_exists(

\* Sets up theme defaults and regis

100+ requests to monthly peering requests to

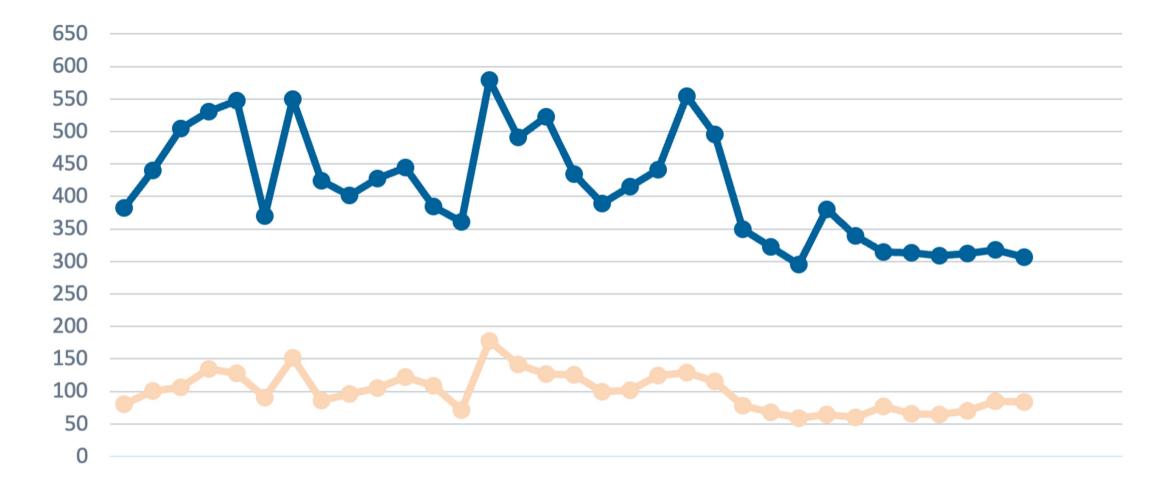
handle

## 230+ IXPs

Internet Exchanges, globally

### 44.000+ **Public Peering Sessions**

## **Peering@Emails**



All Emails
Valid Peering Emails

# We want a streamlined experience for peering with Meta

WELKEYOU

TOO

# Whatudianvateetbit!

### What does it look like?

**Request Public Peering** 

### **Public Peering Sessions**

Select all the exchanges you wish to peer at

Co rtr

	Fabric ID ↑↓	Site ↑↓	Exchange ↑↓	Traffic 30d ↑↓	Meta IP ↑↓	Peer IP ↑↓	BGP Session Status
~	171	gru1	IX.br (PTT.b	0 bps			Not Established 🖯
	171	gru1	IX.br (PTT.b	0 bps	187.16.218.82	187.16.208.180	Not Configured $\triangle$
	171	gru1	IX.br (PTT.b	0 bps	2001:12f8::218:82	2001:12f8::208:180	Not Configured $\triangle$
	171	gru2	IX.br (PTT.b	0 bps	187.16.222.60	187.16.208.180	Not Configured 🛆
	171	gru2	IX.br (PTT.b	0 bps	2001:12f8::222:60	2001:12f8::208:180	Not Configured $\triangle$
	171	gru1	IX.br (PTT.b	0 bps	187.16.220.240	187.16.208.180	Not Configured $\triangle$
	171	gru1	IX.br (PTT.b	0 bps	2001:12f8::220:240	2001:12f8::208:180	Not Configured 🛆
	171	gru2	IX.br (PTT.b	0 bps	187.16.222.61	187.16.208.180	Not Configur

inc	171	gru2	IX.br (PTT.b	0 bps	2001:12f8::222:60	2001:12f8::208:180	Not Configured 🛆
	171	gru1	IX.br (PTT.b	0 bps	187.16.220.240	187.16.208.180	Not Configur 32 rows

 $\times$ 

Close Start Public Peering

### **Private Peering**

Request Private Peering	×
ASN Autonomous System Number	
32934	▼ )
Email contact Email contact (e.g. peering@isp.com)	
test@test.com	
Facility	

#### **Existing LAGs**

ASN ↑↓	Facility ↑↓	Router:LAG ↑↓	IP ↑↓	Speed $\uparrow\downarrow$
32934	Globenet Fortaleza CLS	pr03.for1:et-0/0/23:0	2620:0:1cff:dead:b	10G

#### **Capacity Configuration**

FOR1: Globenet Fortaleza CLS\*

Each LAG usually connects to a separate Peering Router on Meta side. Configure your requirements below:

# LAGs	# Circuits in each LAG		Circuit Speed	
1	▼ 1	-	10G	•
			Close	Create new LAG(s)

Peering	ł	Private	Jest	Requ
---------	---	---------	------	------

 $\times$ 

•

-

#### ASN

Autonomous System Number

32934

#### Email contact

Email contact (e.g. peering@isp.com)

test@test.com

#### Facility

•

SCL1: Level(3) Santiago de Chile\*

#### Existing LAGs

ASN ↑↓	Facility ↑↓	Router:LAG ↑↓	IP ↑↓	Speed $\uparrow\downarrow$
32934	Level(3) Santiago de Chile	pr01.scl1:et-0/0/18	2620:0:1cff:dead:b	100G
32934	Level(3) Santiago de Chile	pr03.scl1:et-0/0/19	2620:0:1cff:dead:b	100 2 rows

#### Capacity Configuration

Each LAG usually connects to a separate Peering Router on Meta side. Configure your requirements below:

# LAGs	# Circuits in each LAG	Circuit S	peed
1	• 1	▼ 100G	•
		Close	Augment existing LAG(s)

### What happens if I email peering@ now?

Thanks for your interest in peering with Meta.

Please send us any peering requests via our dedicated page at <a href="https://www.facebook.com/peering/">https://www.facebook.com/peering/</a>

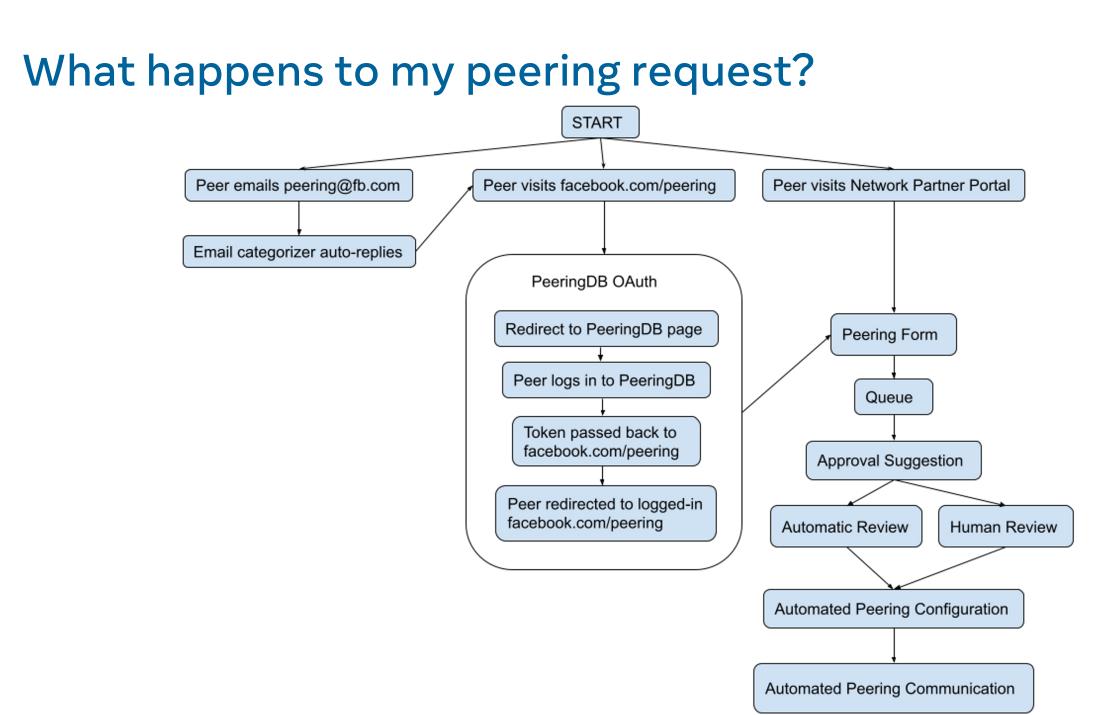
We rely on PeeringDB data for configuration generation, so please make sure your PeeringDB record is up to date before requesting peering.

Our complete peering information can be found at: <a href="http://as32934.peeringdb.com">http://as32934.peeringdb.com</a> and <a href="http://as63293.peeringdb.com">http://as63293.peeringdb.com</a>

Best regards,

Meta Peering

\_\_\_



# 6406 emails 2413 automated requests Automation Impact...Since April 2021 2216 approved

22039 sessions auto configured

### Considerations...

01

### **Queuing System**

Initially have all peering requests human reviewed, gradually moving to automated approvals

## 02

### Relying on PeeringDB

We already rely on PeeringDB data already for tools feeding our session automation 03

### No Facebook account

Wanted to ensure that having a Facebook account was not a requirement

### **Components Required**

- Tool to generate configs per-peer
- Automation to push config
- System to **monitor** BGP session status
- Workflow engine to **coordinate** all steps
- Landing page for peers to request sessions.

### You should do this too!

- See all your BGP sessions in **one place**
- **Configure** new BGP sessions
- Everyone has a **PeeringDB** account, right?
- **PeeringDB OAuth** is easy to implement it took us about a day
- **Others are using** PeeringDB Oauth too, such as IXP Manager and Peering Manager
- Automation saves time!



### **Industry Standard**

01

### PeeringDB Login

PeeringDB OAuth as the standard authentication service for peering 02

### **Open-Source Tools**

Peering Manager, PeeringDB OAuth, PeeringDB Tools 03

### **Programmatic API**

Remove human element from routine peering requests.

# We've only just begun.

# THIS JOURNEY 1% FINISHED

SN	Additional ASNs		
Q 32934 ×	Please enter any additiona	al ASNs (Ex: 1, 2, 3,)	
ganization Name		Network Type	
Vleta		Please select your network type	
	tion of deployment for the cache.		
State, Province, or Reg	gion	City	
Please enter your sta	ate, province, or region	Please enter your city	
Contact Information	n		•
Contact Information Enter your contact info Name	<b>n</b> prmation to connect with us.		-
Enter your contact info		Job Title	-
Enter your contact info Name		Job Title Please select your job title	-
Enter your contact info	ormation to connect with us.		
Enter your contact info	acts		
Enter your contact info Name Email contact Additional Email Contact Please enter addition	acts	Please select your job title	
Enter your contact info Name Email contact Additional Email Conta Please enter addition	acts	Please select your job title	
Enter your contact info Name Email contact Additional Email Conta Please enter addition	acts nal relevant emails (ex: example.one	Please select your job title	

facebook.com/peering

# Questions?