

Le web décentralisé



Breizh C@mp

Qui suis-je ?



@AntoineCailly



acailly



zenika
<animés par la passion>

Great
Place
To
Work.[®]

Best Workplaces™

50 à 500 salariés

FRANCE

2018

**Il était une fois le web
en 2018...**



Censure



Sat Apr 29 2017 08:02:55 GMT+0300 (+03)
<https://en.wikipedia.org> 5005 DOWN
<https://tr.wikipedia.org> 5009 DOWN
<https://az.wikipedia.org> 5009 DOWN
<https://fr.wikipedia.org> 5007 DOWN
<https://www.wikipedia.org> 5007 DOWN



Turkey Blocks

@TurkeyBlocks



Suivre

Confirmed: All editions of the [#Wikipedia](#) online encyclopedia blocked in [#Turkey](#) as of 8:00AM local time turkeyblocks.org/2017/04/29/wik...

07:22 - 29 avr. 2017



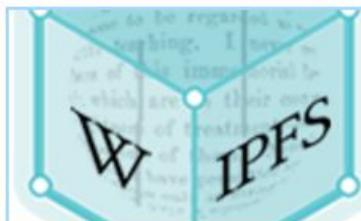
86



2 875



1 015



Vikipedi'ye hoş geldiniz

Herkesin katkıda bulunabildiği Özgür Ansiklopedi

Türkçe madde sayısı: 288.931

9 Ocak 2017, Pazartesi

- Bilim

- Coğrafya

- Din

- Fizik

- Matematik

- Sanat

- Spor

- Tarih

- Tüm portaller

Haftanın seçkin maddesi



Mars, Güneş Sistemi'nin Güneş'ten itibaren dördüncü gezegeni. Roma mitolojisindeki savaş tanrıları Mars'a ithafen adlandırılmıştır. Yüzeyindeki yaygın demir oksitten dolayı kızılımsı bir görünümü sahip olduğu için *Kızıl Gezegen* de denir. İnce bir atmosferi olan Mars gerek Ay'daki gibi meteor kraterlerini, gerekse Dünya'daki

gibi volkan, vadi, çöl ve kutup bölgelerini içeren çehresiyle bir *yerbenzeri gezegendir*. Ayrıca dönme periyodu ve mevsim dönemleri Dünya'ninkine çok benzer.

<https://ipfs.io/ipfs/QmT5NvUtoM5nWFfrQdVrFtvGfKFmG7AHE8P34isapyhCxX/wiki/Anasayfa.html>

Güneş Sistemi'nde bilinen en yüksek dağ ve *Marineris Vadisi* adlı kanyon en büyük kanyondur. Ayrıca Haziran

2008'de *Nature* dergisinde yayımlanan üç makalede

Günün seçkin resmi





Referèndum 2017

Inici

Normativa electoral

Sindicatures electorals

Sala de premsa

Com s'ha de votar

On votar



Col·laboradors del referèndum

El més destacat

- Material per descarregar
- Calendari electoral
- Call for international monitoring

Preguntes més freqüents

Electors

Calendari electoral

Mesos electorals

Suppression des données





Donald J. Trump 
@realDonaldTrump



Suivre

It's freezing in New York—where the hell is global warming?

21:37 - 23 avr. 2013



397



470



281



Trump Just Deleted Obama's Climate Change Webpages



By Brian Kahn

Follow @blkahn

9,117 followers



Published: January 20th, 2017

At the exact hour when the presidency transferred hands, the Obama administration's climate and energy webpages became some of the first casualties of the new Trump administration.

In their place is an "["America first" energy plan](#)", which talks at length about tapping fossil fuel resources in the U.S. but makes no mention of climate change or renewable energy. Investing in the latter will be crucial to avert catastrophic changes to the world.



<http://www.climatecentral.org/news/trump-delete-climate-change-webpage-21091>

Obama's climate page has been sent off to the archive.

Building refuge for federal climate & environmental data

DataRefuge helps to build refuge for federal data and supports climate and environmental research and advocacy. We are committed to fact-based arguments. DataRefuge preserves the facts we need at a time of ongoing climate change.

This site is one part of the project. The vast majority of the government information gathered through this project is available from the Internet Archive through the [End of Term project](#). This data catalog is a place to store data that is difficult or impossible to harvest through web crawlers. Data was added to this site by volunteers at [Data Rescue events](#). You can see the [workflow](#) used at many of these events on the Data Refuge project site, however this workflow is no longer supported.





maxwell ogden
@denormalize

 Suivre

Today Trump removed all open data (9GB) from the White House open.whitehouse.gov/browse but I grabbed it all Jan 20! Will distribute soon

21:12 - 14 févr. 2017

288 8 854 12 877

Shared with Dat

Explore public data shared with Dat.



EXECUTIVE OFFICE OF THE PRESIDENT

Archive of open.whitehouse.gov

Backup of the open data released by President Barack Obama
before being deleted in February, 2017.

Preview

<https://datproject.org/explore>



Centralisation des services



Recherche



Maps



YouTube



Play



Actualités



Contacts



Drive



Agenda



Docs



Traduction



Photos



Inbox



WhatsApp



waze



Instagram



ANDROID



chrome

A large blue square containing the white text "DELETE facebook".

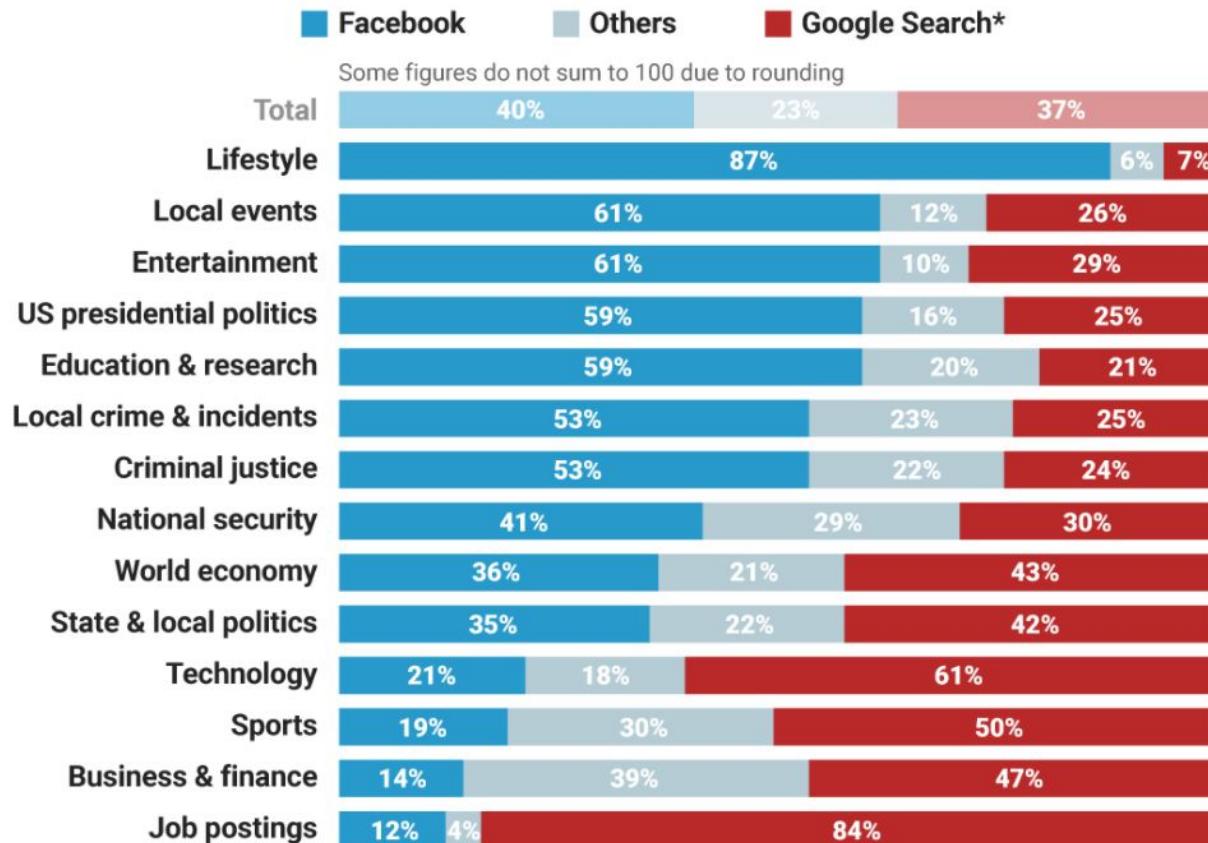
DELETE
facebook

et Google, Amazon, Microsoft, Apple, Uber...

Centralisation du trafic



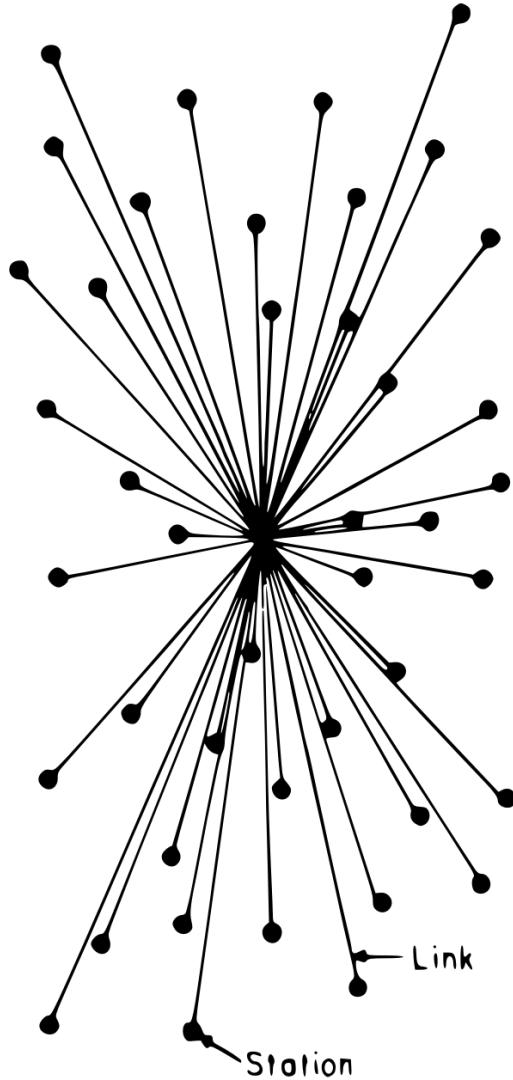
DISTRIBUTION OF REFERRAL TRAFFIC SOURCES BY TOPIC



SOURCE: Parse.ly *Not including Google AMP

statista | BUSINESS INSIDER

**Un point
commun ?**

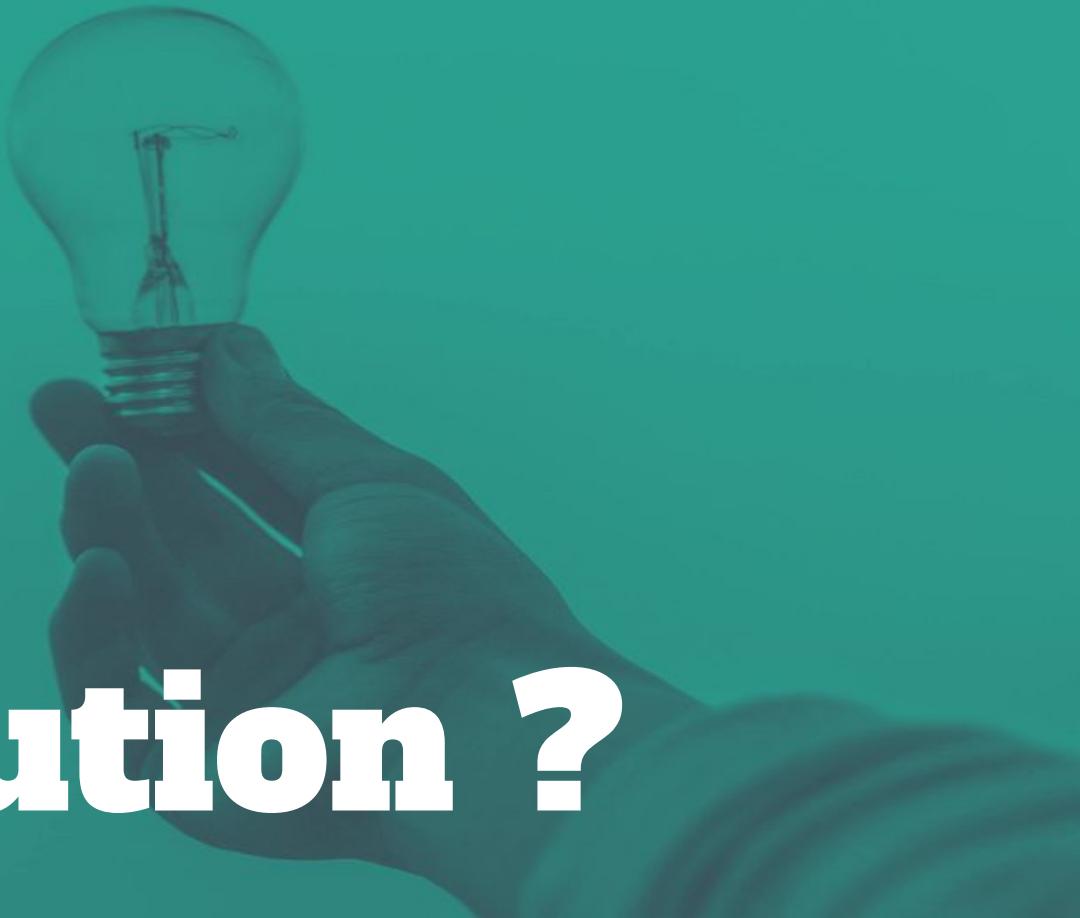


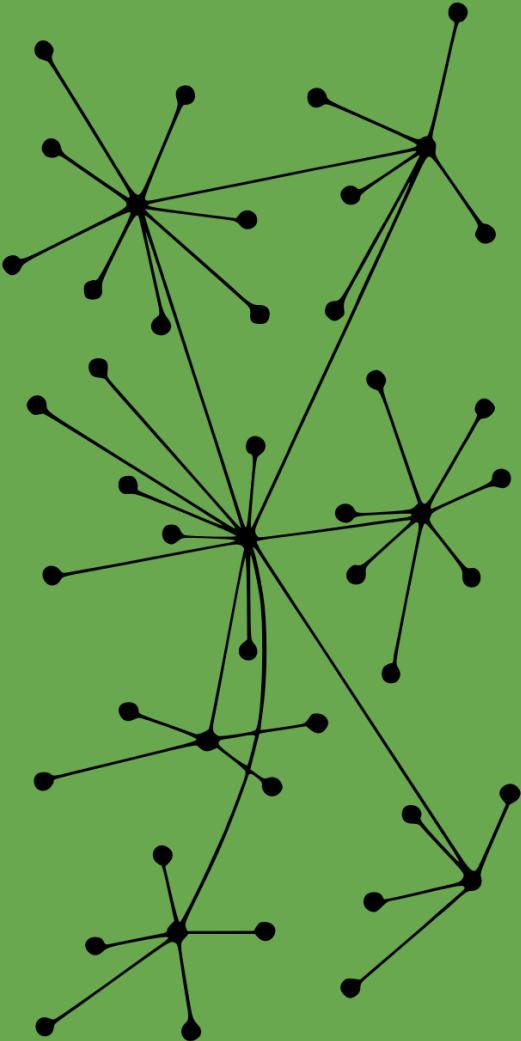
**Single
point of**

failure

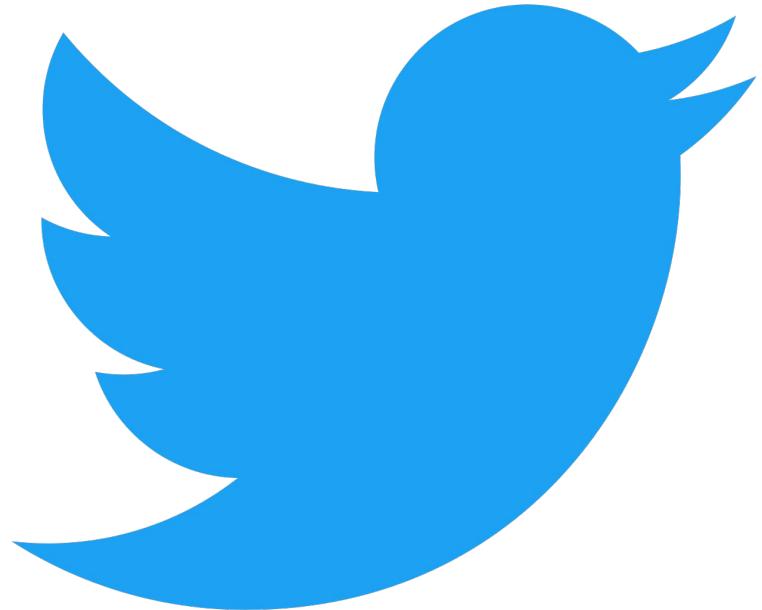
**Single
point of
control**

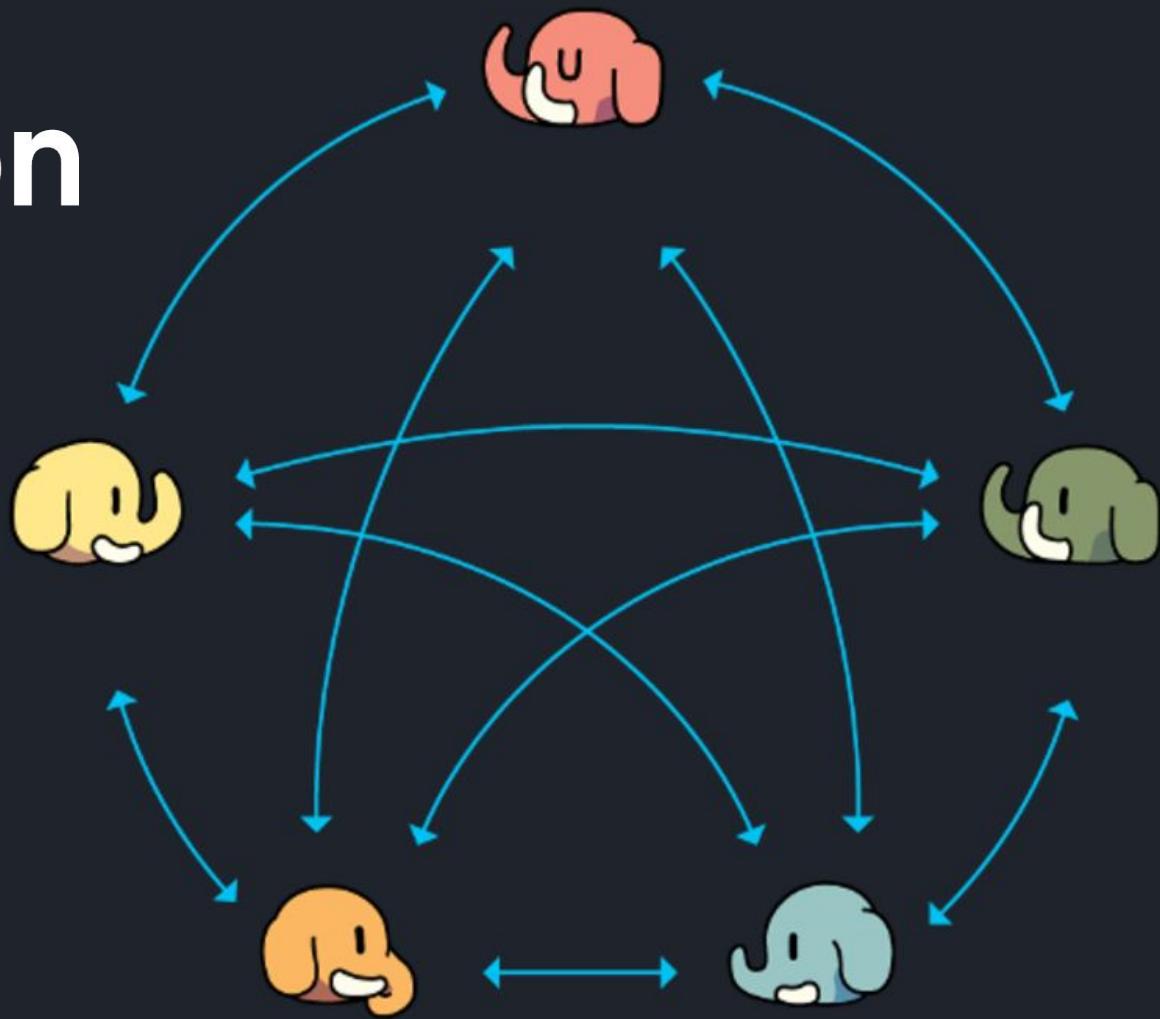
Une solution ?





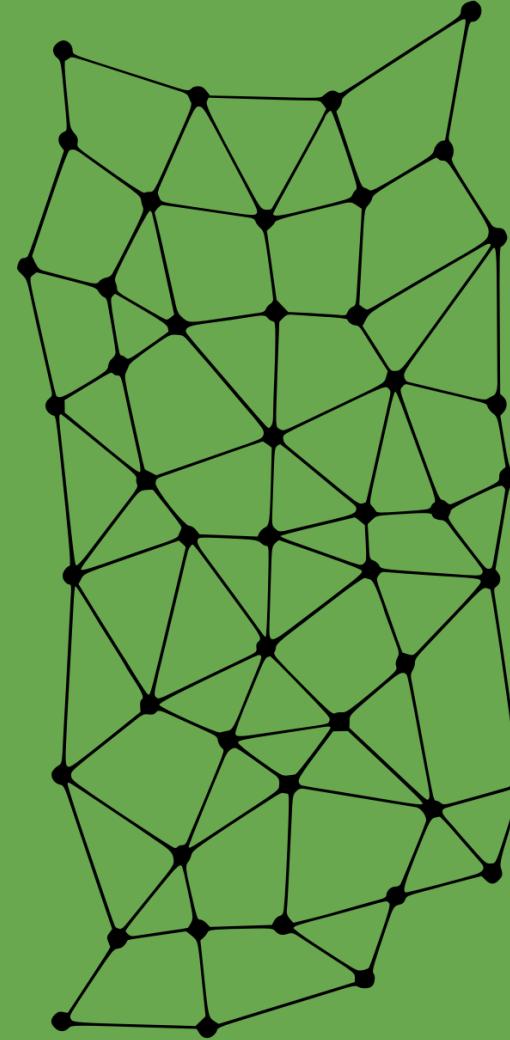
Décentralisé

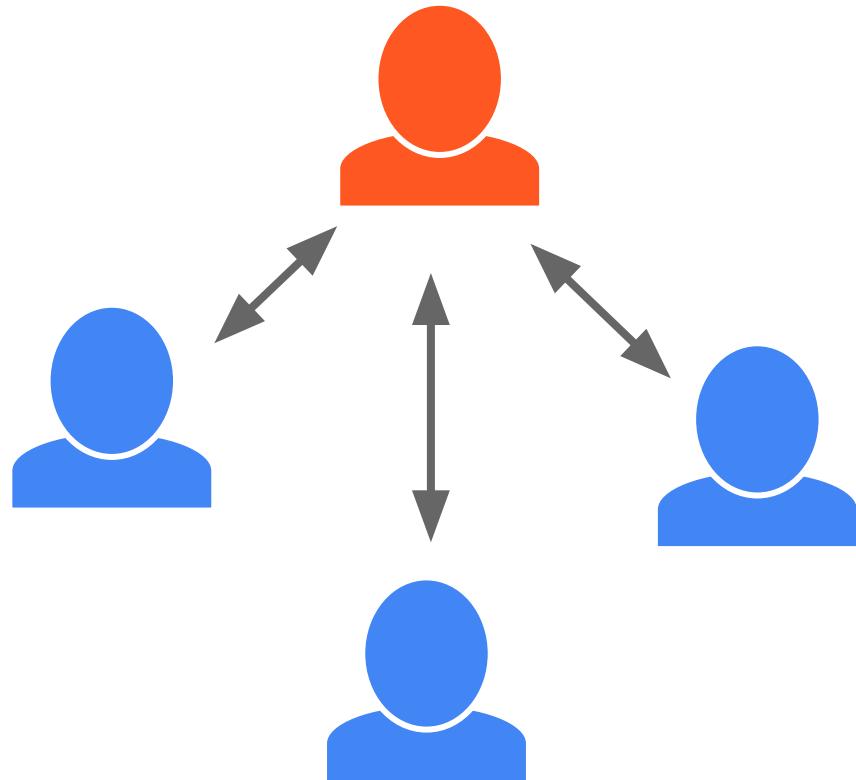




<https://joinmastodon.org/>

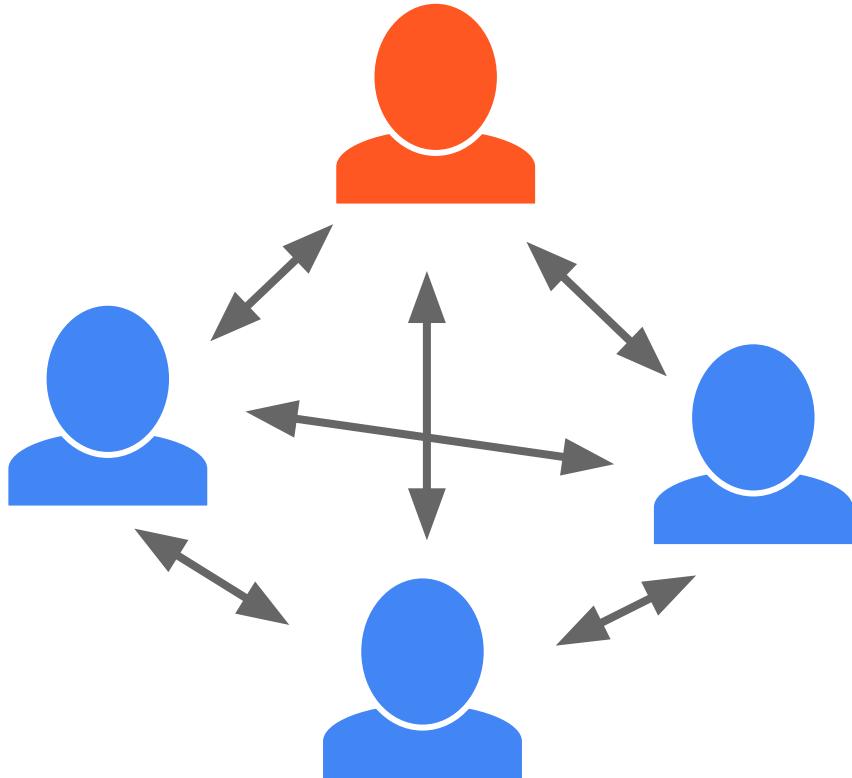
Distribué

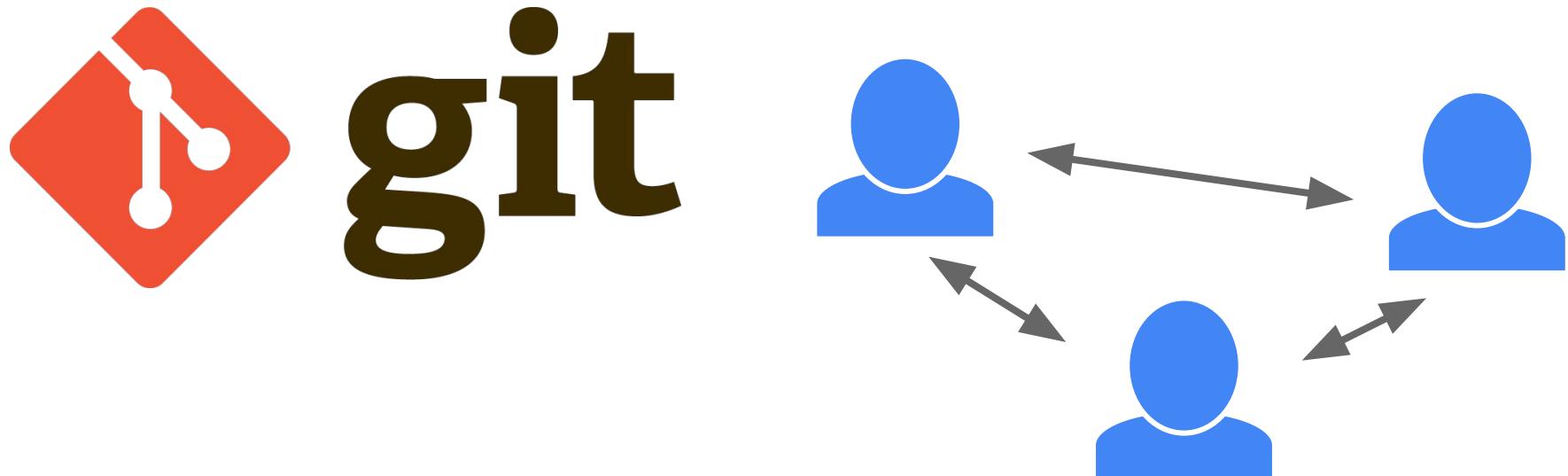




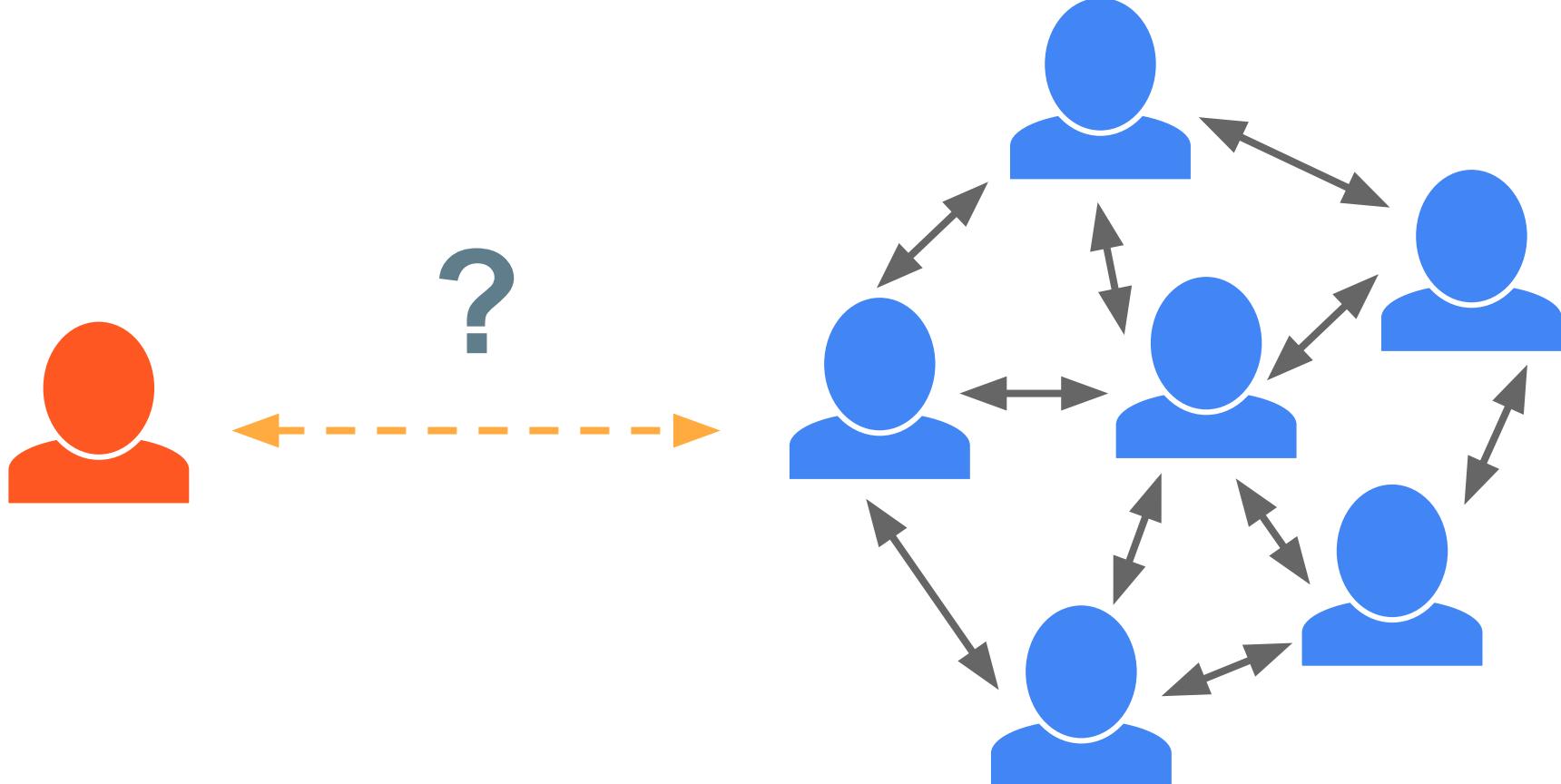


git



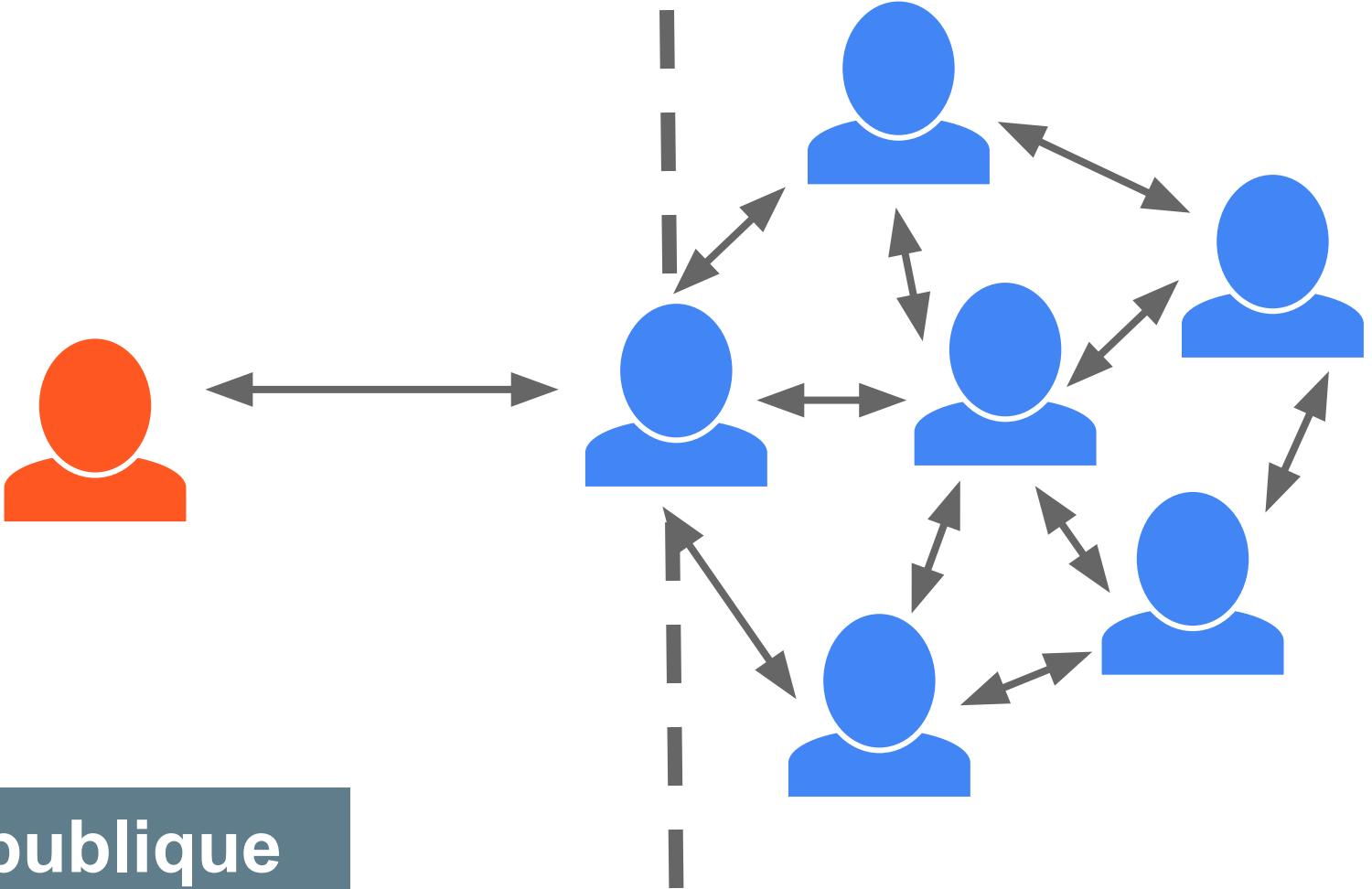


Comment ça marche ?

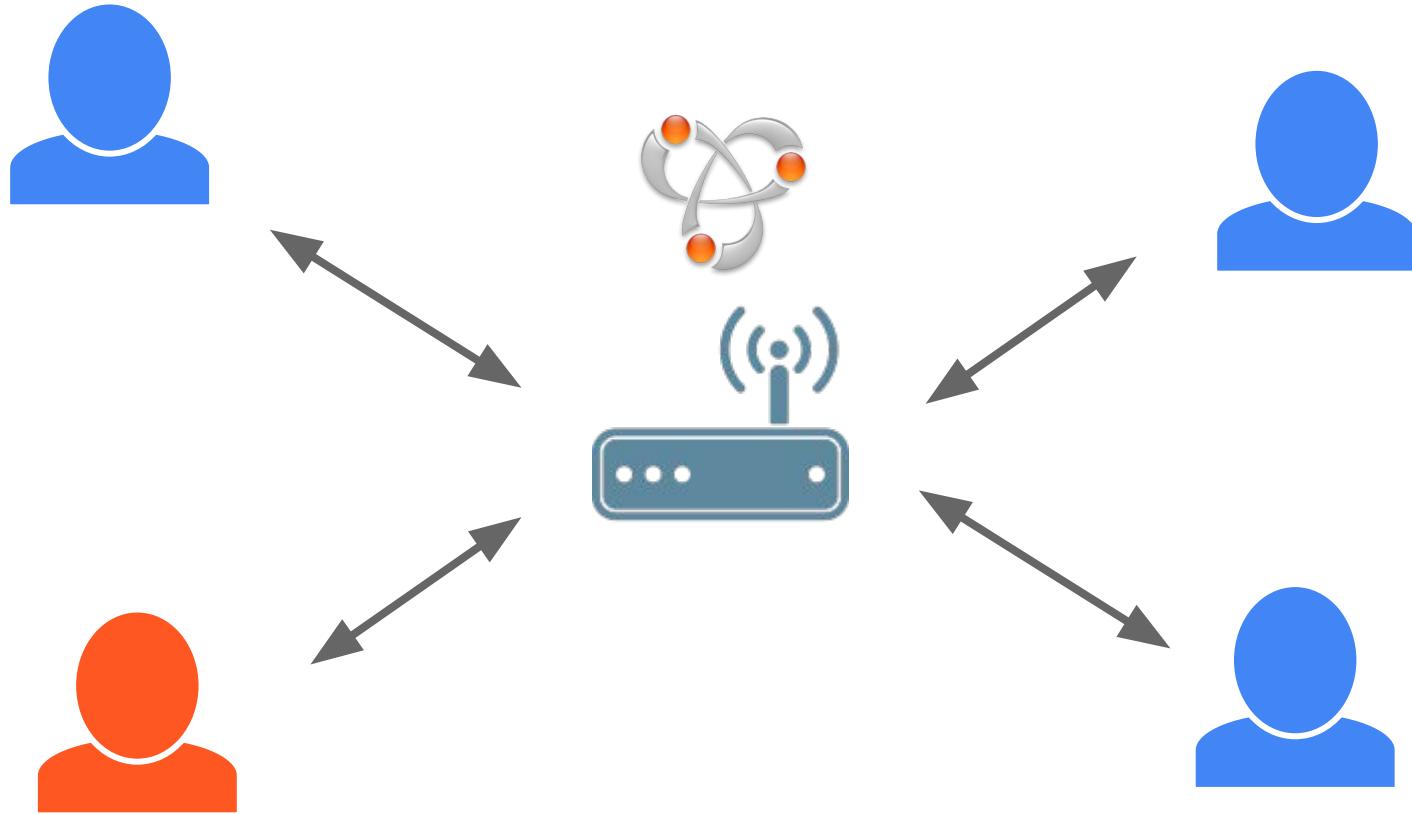


Bootstrapping





Node publique



Multicast DNS (ZeroConf, Apple Bonjour)

Démo

Trouver une node
publique Bitcoin

PS C:_Projets\Perso\doc> nslookup bitseed.xf2.org

Serveur : dns2.proxad.net

Address: 212.27.40.241

Réponse ne faisant pas autorité :

Nom : bitseed.xf2.org

Addresses: 24.52.35.44

50.177.196.160

68.48.214.241

76.111.96.126

85.214.90.1

94.226.111.26

96.2.103.25

97.117.255.48

99.242.230.163

162.243.194.210

173.69.49.106

198.38.93.227

209.208.110.92

PS C:_Projets\Perso\doc> nslookup bitseed.xf2.org

Serveur : dns2.proxad.net

Address: 212.27.40.241

Réponse ne faisant pas autorité :

Nom : bitseed.xf2.org

Addresses: 24.52.35.44

50.177.196.160

68.48.214.241

76.111.96.126

85.214.90.1

✓ 85.214.90.1:8333 /Satoshi:0.15.99(UASF-SegWit-BIP148)/

99.242.230.163

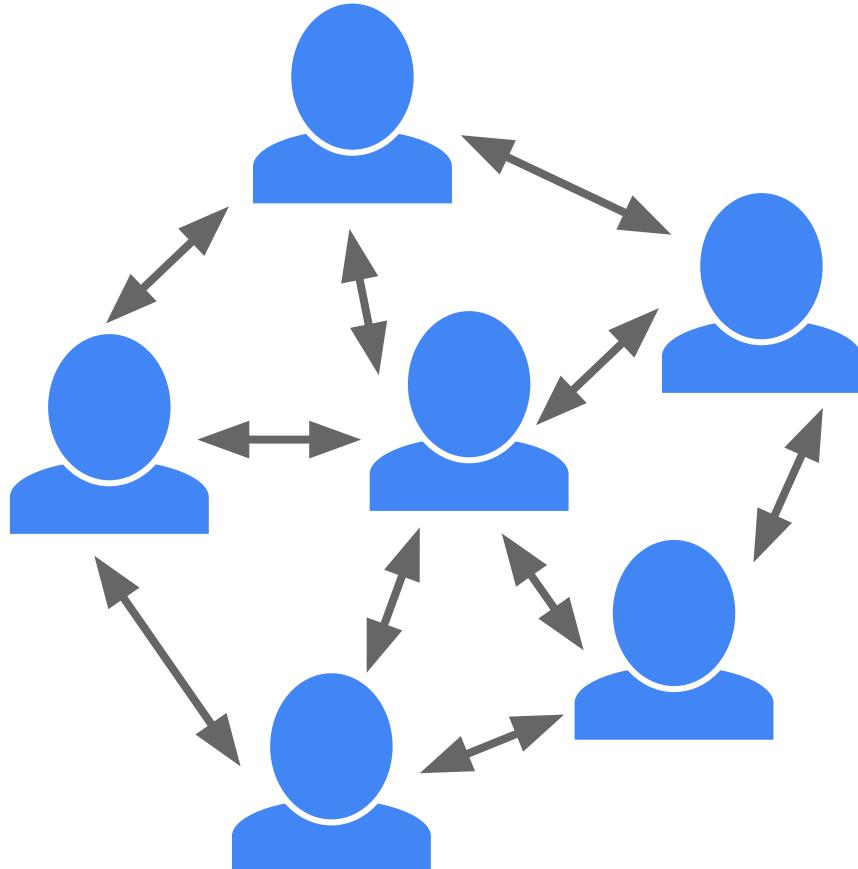
162.243.194.210

173.69.49.106

198.38.93.227

209.208.110.92

foo.txt ?

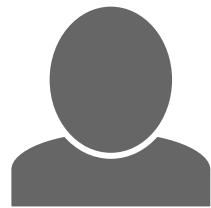


Discovery

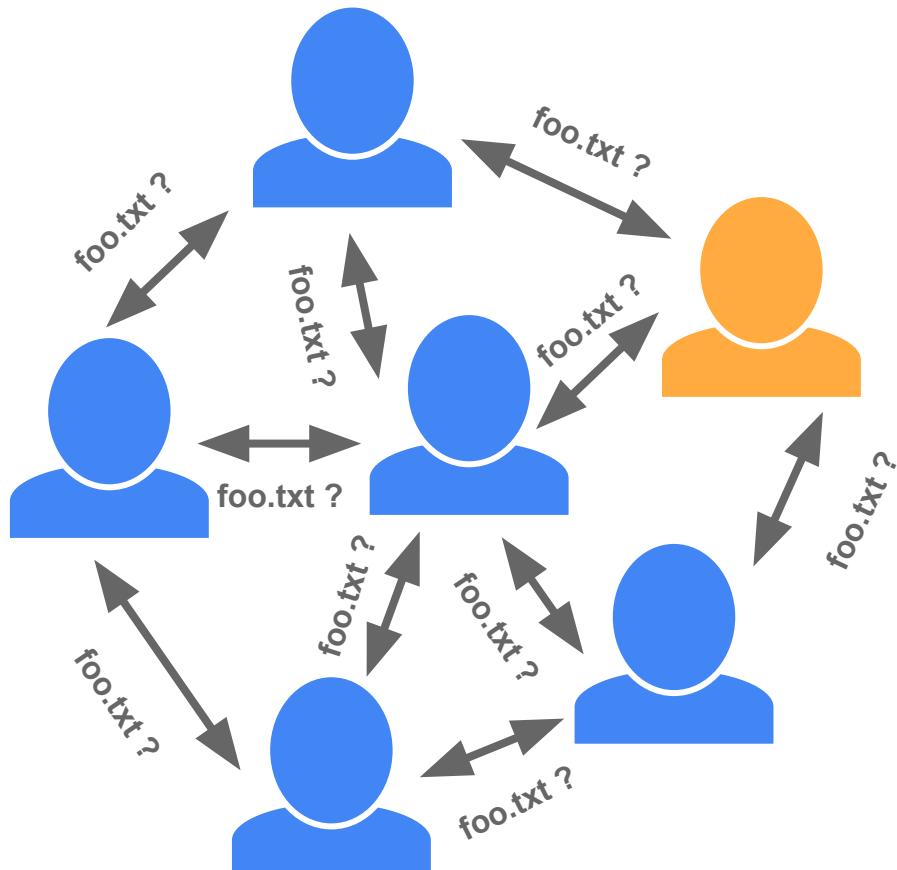


**Retour dans les années
2000...**

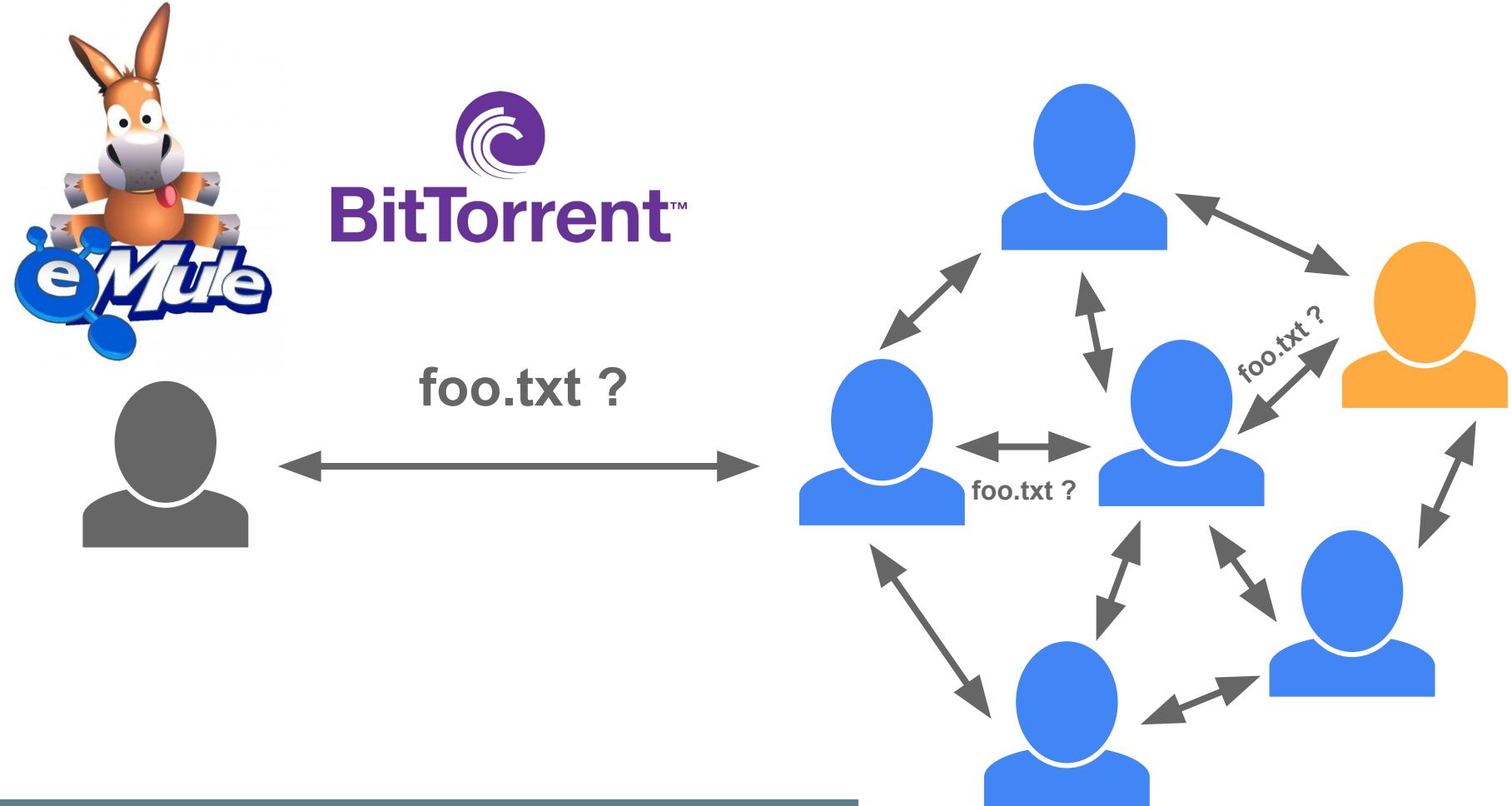
gnutella



foo.txt ?



Query Flooding

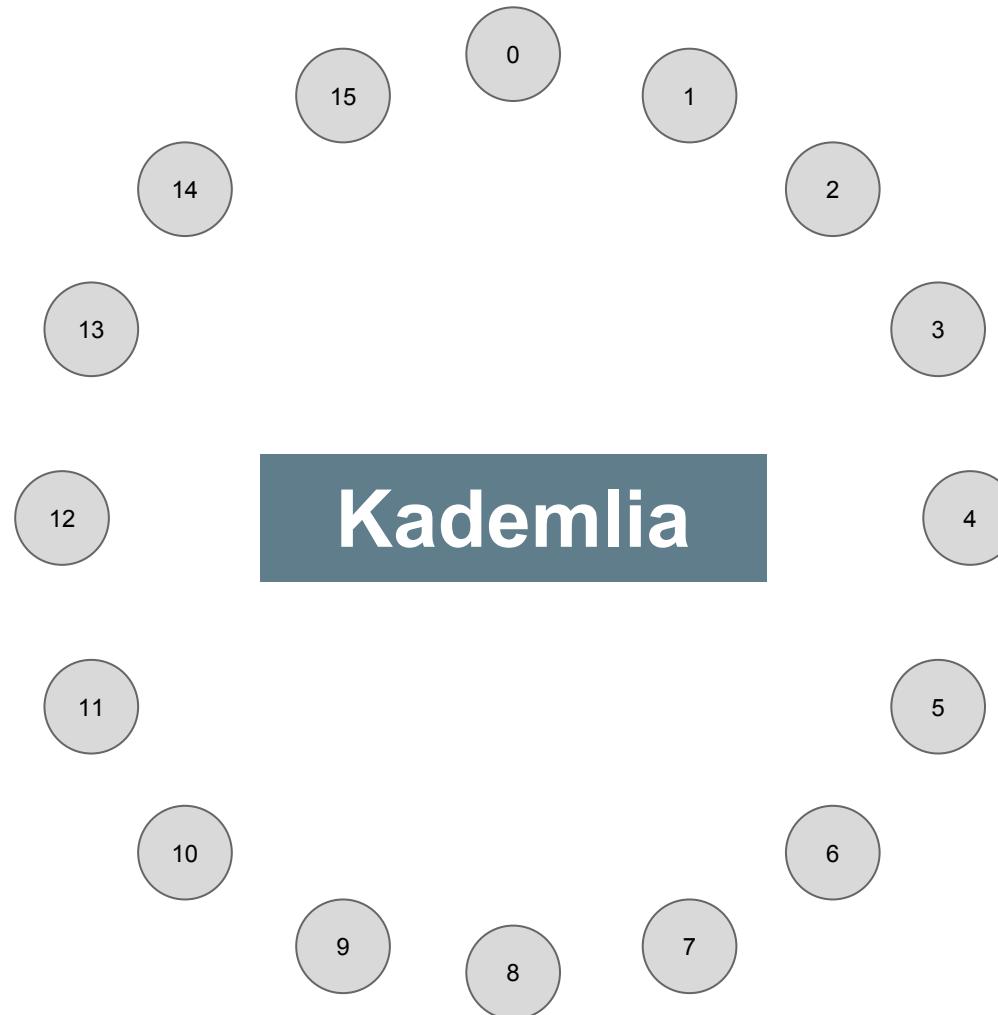


Distributed Hash Table

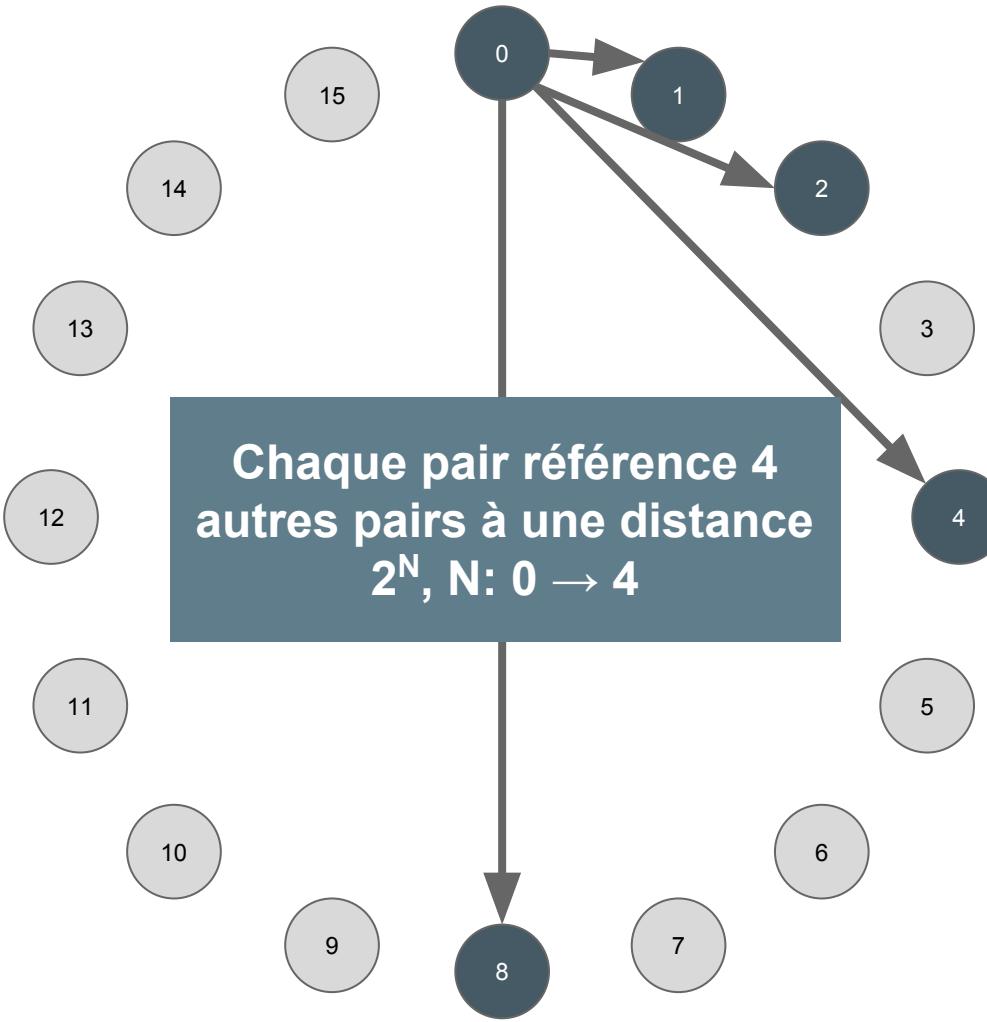
Distributed Hash Table

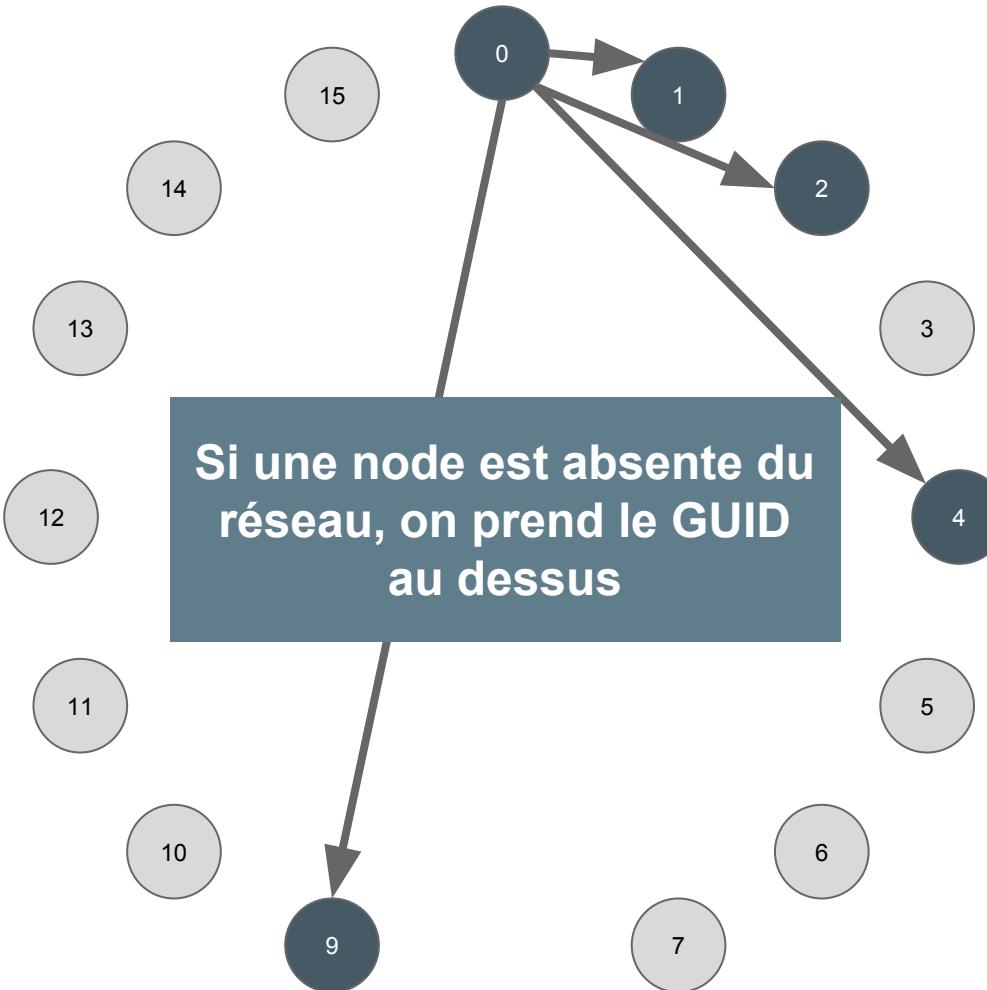
DHT ?

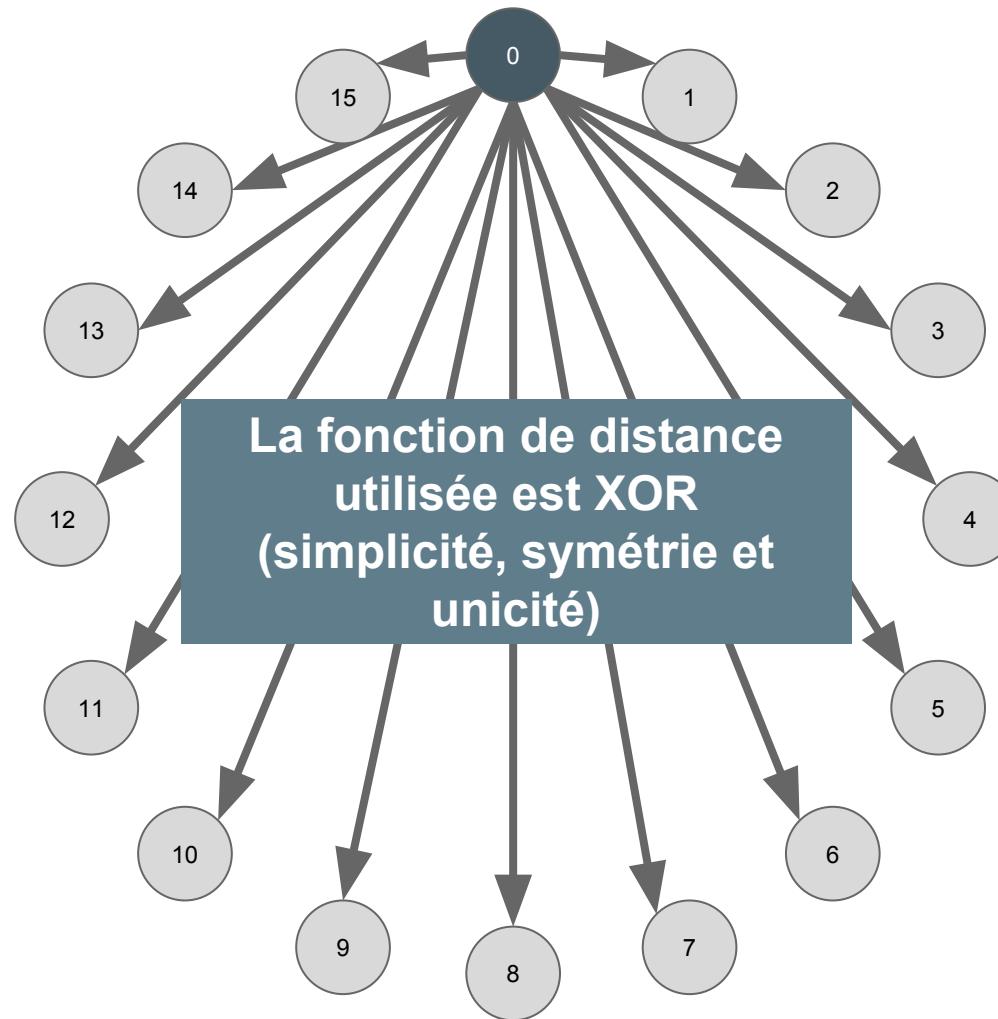
Kademlia



GUID sur 4 bits
0 → 15
15 pairs max.







0

qui possède
foo.txt ?

15

14

1

2

13

3

12

4

11

5

10

6

9

7

8

infohash(foo.txt) = 15

0

15

14

qui possède
foo.txt ?

1

2

13

3

12

4

11

5

10

6

9

7

8

il sait !

$\text{infohash}(\text{foo.txt}) = 15$

15

0

1

14

2

13

3

12

4

11

5

10

6

9

7

8

qui possède
foo.txt ?

On prend le plus près

8

9

7

6

5

10

11

12

13

14

15

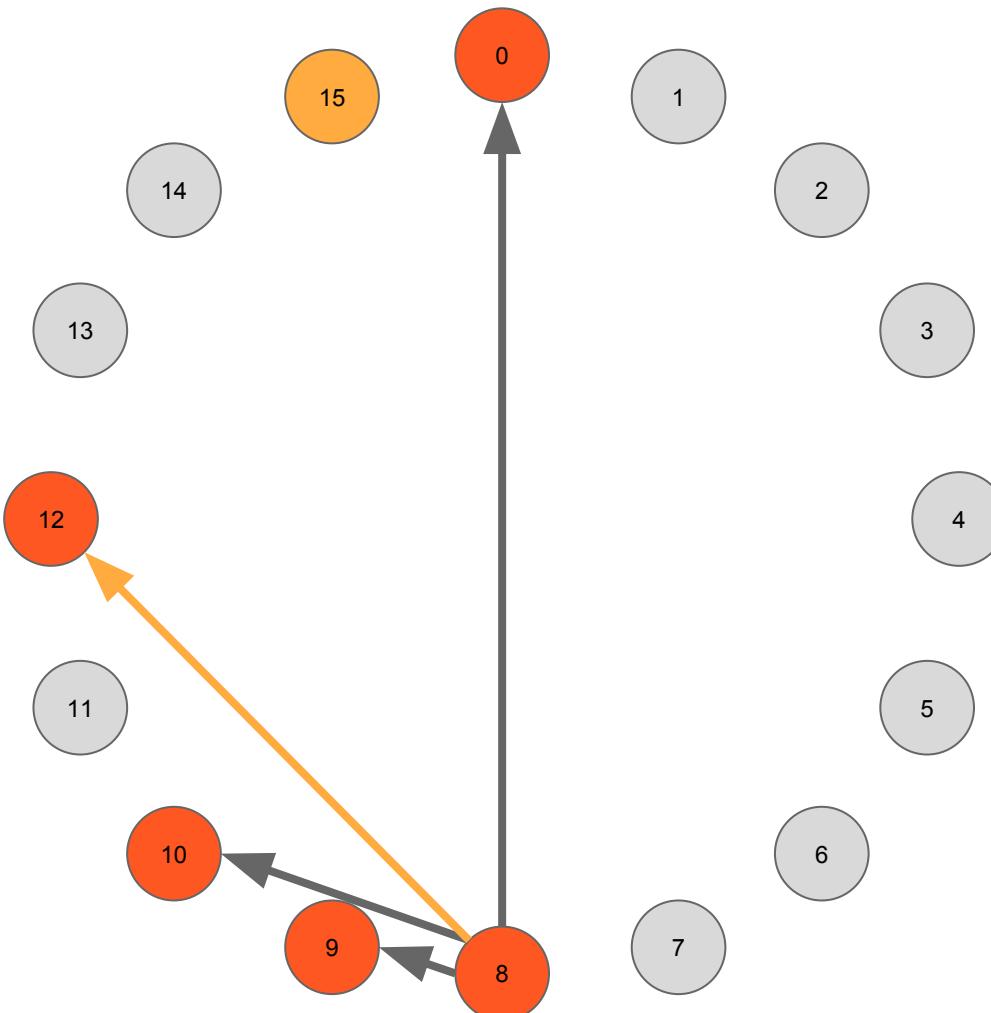
0

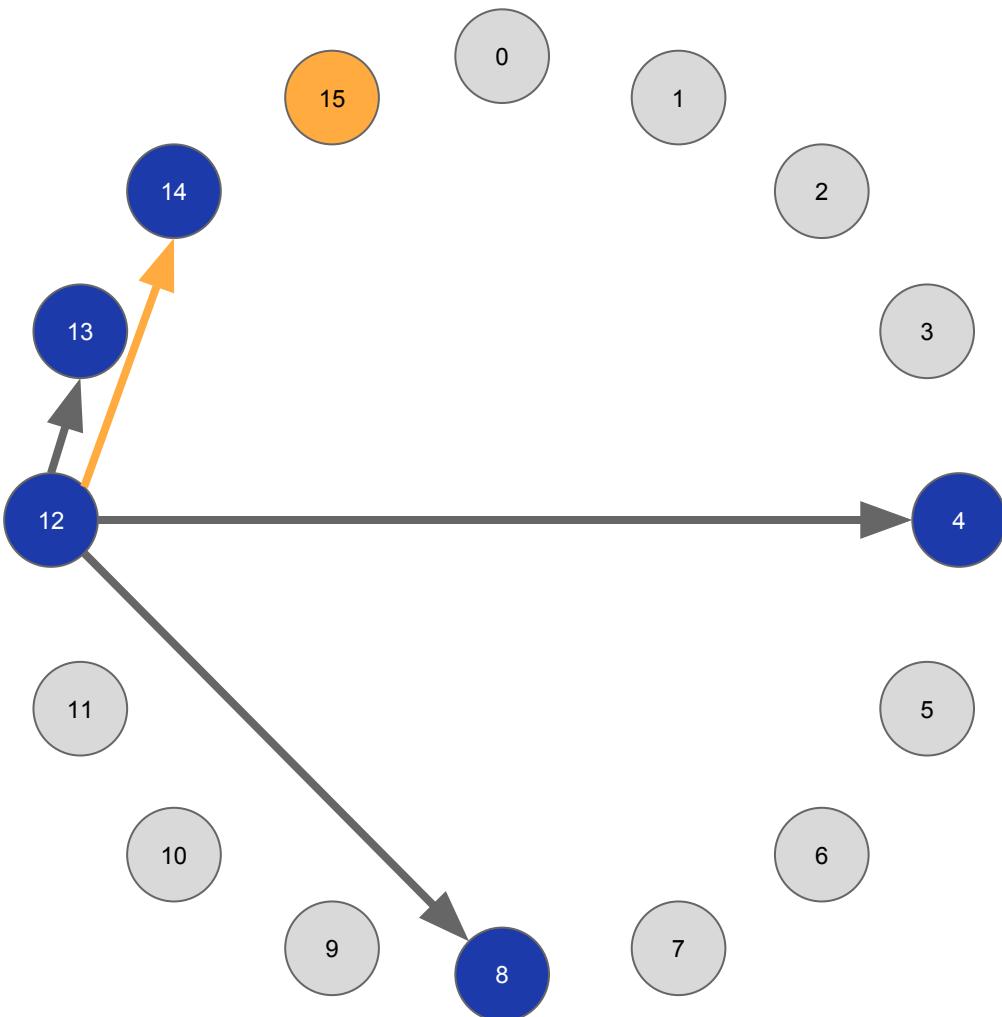
1

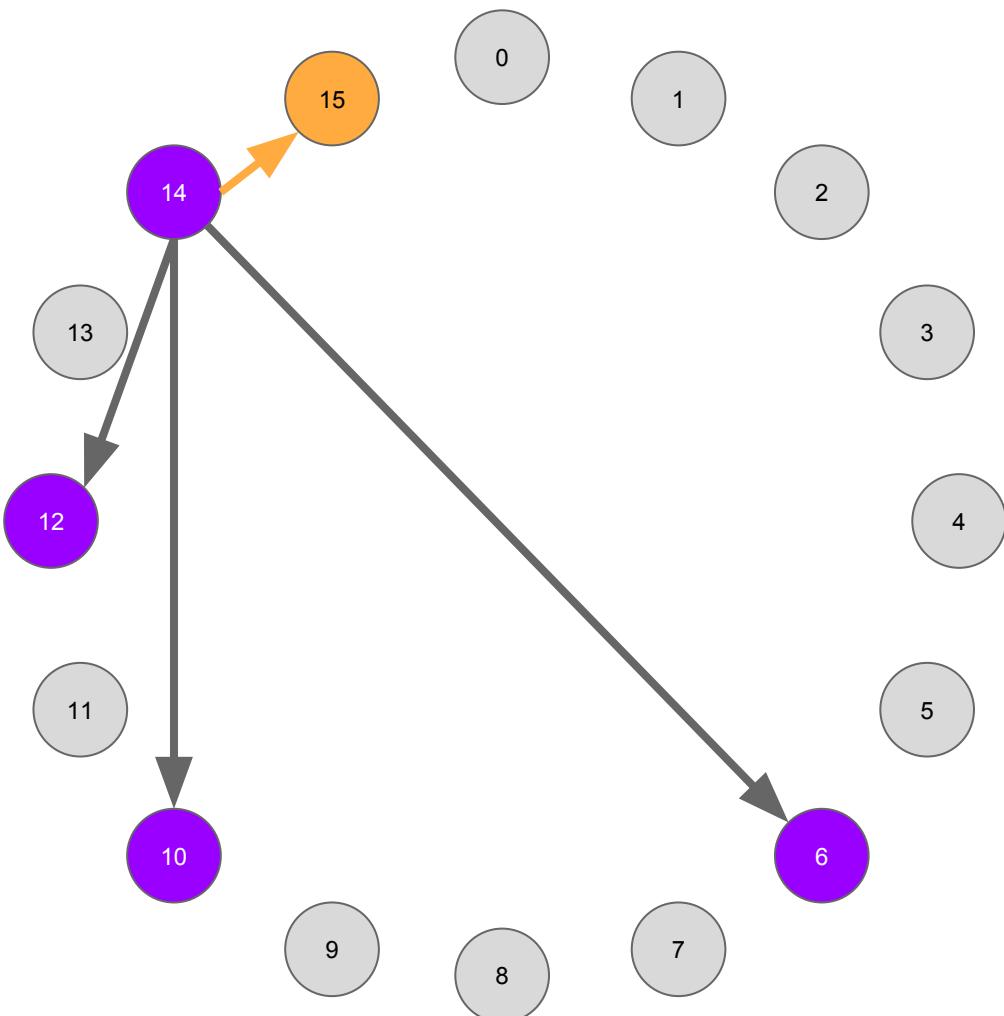
2

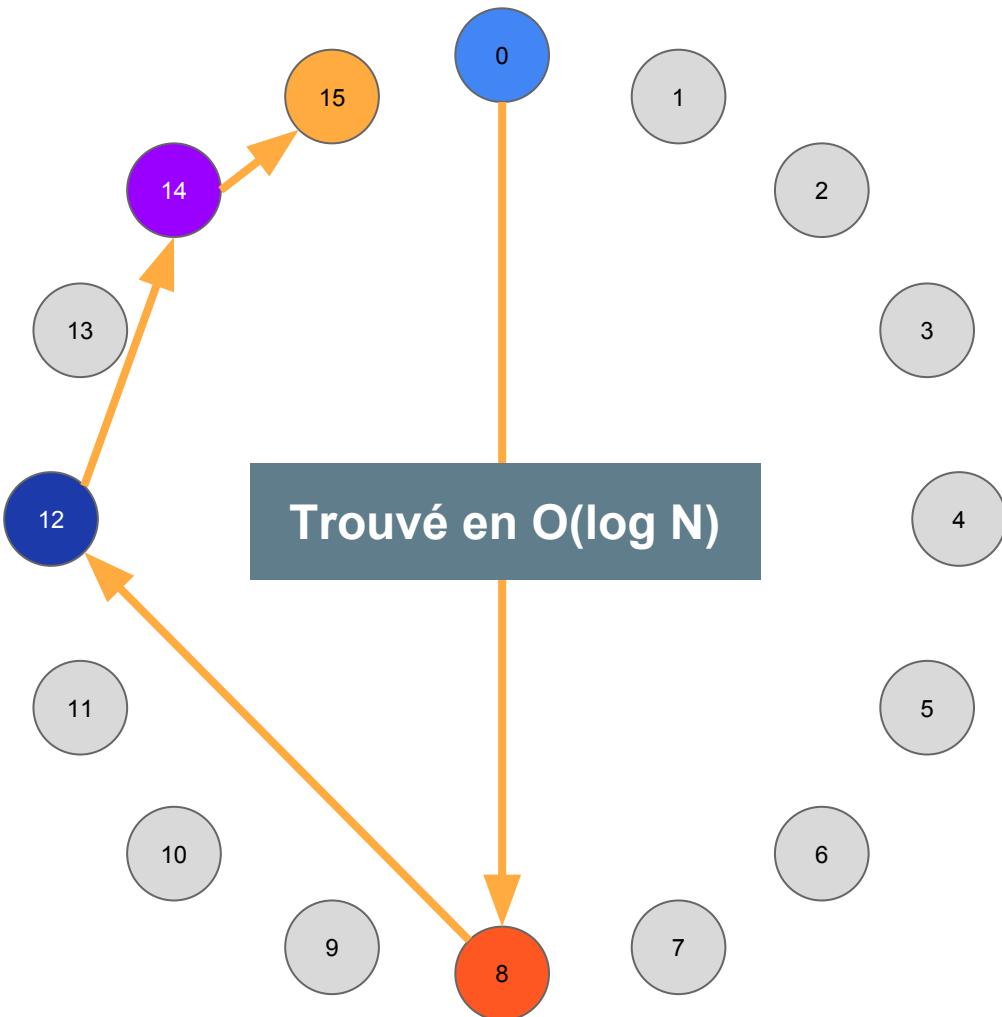
4

3









Démo

Les magnet links
sur Bittorrent

Hadopi

**Haute Autorité pour la diffusion des œuvres
et la protection des droits sur internet**

TELEMA ET LE STUDIO CANAL+ PRESENTENT UN FILM

PRODUIT PAR CHARLES GASSOT

LE FILM DE LES NULS[®]



LA CITE DE LA PEUR

Une comédie familiale.

RÉALISÉ PAR ALAIN BERBERIAN

TELEMA ET LE STUDIO CANAL+ PRESENTENT UN FILM PRODUIT PAR CHARLES GASSOT LE FILM DE LES NULS LA CITE DE LA PEUR UNE COMEDIE FAMILIALE

CHANTAL LAUBY • ALAIN CHABAT • DOMINIQUE FARRUGIA • GERARD BARRONI • SAM KAHAN

SCÉNARIO ORIGINAL CHANTAL LAUBY ALAIN CHABAT DOMINIQUE FARRUGIA • DIRECTEUR DE LA PHOTOGRAPHIE LAURENT DAILLAND

MUSIQUE PHILIPPE CHANY • MONTAGE VÉRONIQUE PARNET

PRODUCTEUR DÉLEGUÉ CHARLES GASSOT • PRODUCTEUR EXÉCUTIF DOMINIQUE BRUNNER

UNE PRODUCTION TELEMA LE STUDIO CANAL+ FRANCE 3 CINEMA M6 FILMS

[Pirate Search](#)

Audio Video Applications Games Porn Other [All](#) ▾

Details for this torrent

La citÃ© de la Peur by LADB

Type:	Video > Movies	Uploaded:	2008-05-02 19:15:37
Files:	2	GMT	
Size:	691.28 MiB (724855831 Bytes)	By:	wazany
Spoken language(s):	French		
Texted language(s):	French		
Seeders:	13	Leechers:	0
Comments	1		

Info Hash:

96BFF9E1F47398C3807071B55AD658ED50F2042F

[GET THIS TORRENT](#) [PLAY/STREAM TORRENT](#)

(Problems with magnets links are fixed by upgrading your torrent client!)

Synopsis :

Odile Deray, attachÃ©e de presse, vient au Festival de Cannes pour prÃ©senter le film "Red is Dead".

Malheureusement, celui-ci est d'une telle faiblesse que personne ne souhaite en faire l'Ã©cho.

Mais lorsque les projectionnistes du long-mÃ¢trage en question meurent chacun leur tour dans d'Ã©tranges circonstances, "Red is dead" bÃ©nÃ©ficie d'une incroyable publicitÃ©. Serge Karamazov est alors chargÃ© de protÃ©ger le nouveau projectionniste du film...

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')
```

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')
```

```
var peers = []
var dht = new DHT()
```

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')

var peers = []
var dht = new DHT()
```

```
dht.on('peer', function (peer, infoHash, from) {
  var geo = geoip.lookup(peer.host)
  peers.push(
    peer.host + ':' +
    peer.port + ':' +
    geo.country
  )
})
```

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')

var peers = []
var dht = new DHT()

dht.on('peer', function (peer, infoHash, from) {
  var geo = geoip.lookup(peer.host)
  peers.push(
    peer.host + ':' +
    peer.port + ':' +
    geo.country
  )
})
})
```

```
setTimeout(function () {
  dht.destroy()
  console.log(_.uniq(peers))
}, 10 * 1000)
```

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')

var peers = []
var dht = new DHT()

dht.on('peer', function (peer, infoHash, from) {
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    peer.port + ':' +
    geo.country
  )
})

setTimeout(function () {
  dht.destroy()
  console.log(_.uniq(peers))
}, 10 * 1000)
```

dht.lookup(infoHash)

```
var _ = require('lodash')
var DHT = require('bittorrent-dht')
var geoip = require('geoip-lite-country')

var peers = []
var dht = new DHT()

dht.on('peer', function (peer, infoHash, from) {
  var geo = geoip.lookup(peer.host)
  peers.push(
    peer.host + ';' +
    peer.port + ';' +
    geo.country
  )
})

setTimeout(function () {
  dht.destroy()
  console.log(_.uniq(peers))
}, 10 * 1000)

dht.lookup(infoHash)
```

Done crawling

Found 12 peers

```
[ '91.138.225. [REDACTED]:62762:GR',
  '178.194.206. [REDACTED]:17132:CH',
  '5.51.42. [REDACTED]:33457:FR',
  '51.15.3. [REDACTED]:54728:NL',
  '5.51.42. [REDACTED]:45442:FR',
  '88.191.54. [REDACTED]:62348:FR',
  '51.15.3. [REDACTED]:51413:NL',
  '178.194.206. [REDACTED]:60482:CH',
  '82.253.38. [REDACTED]:61818:FR',
  '82.249.8. [REDACTED]:33876:FR',
  '178.194.206. [REDACTED]:45429:CH',
  '178.194.206. [REDACTED]:37603:CH' ]
```

Crawl ended

Done in 10.57s.



Peer to Peer



Privé

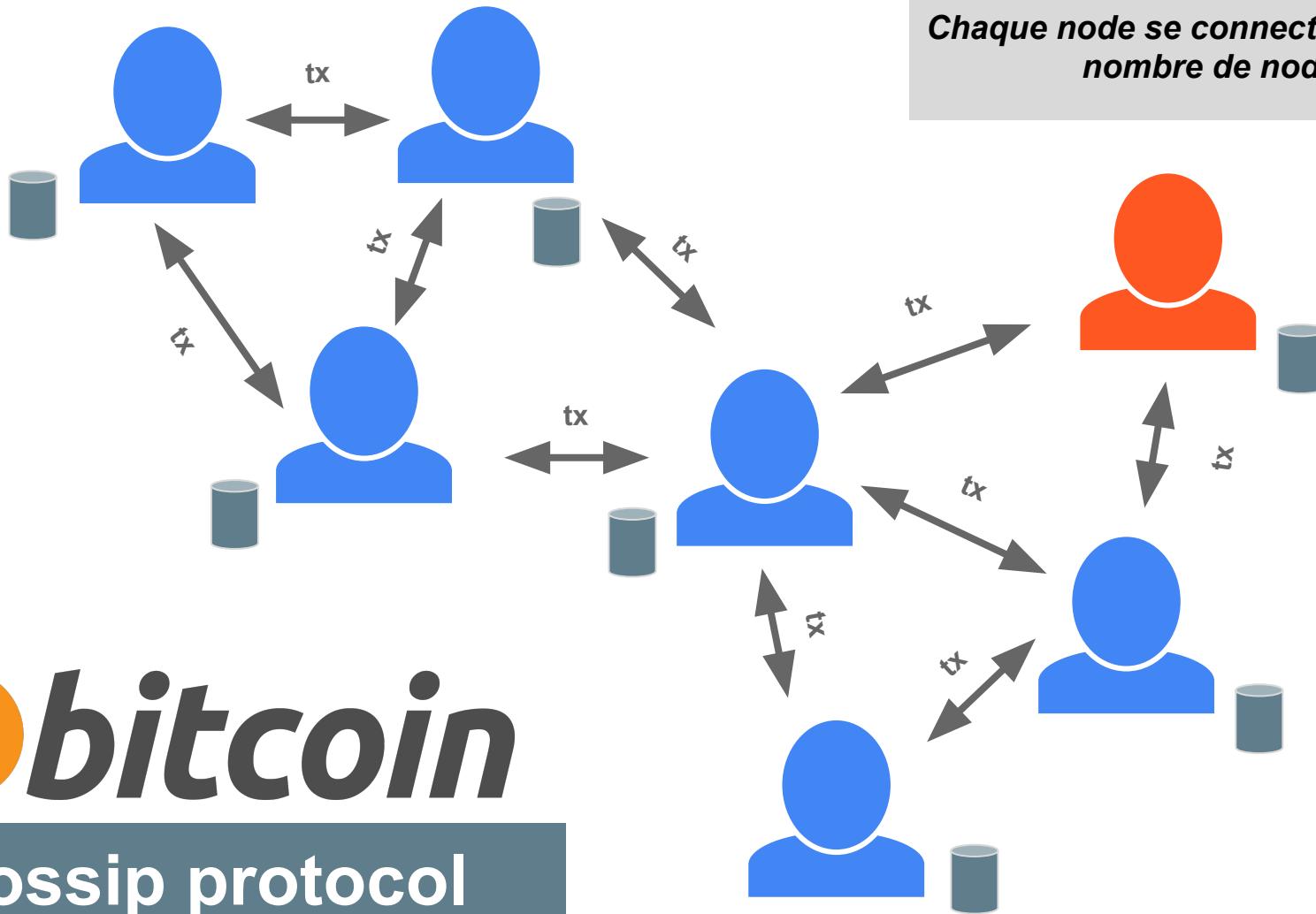


Et la blockchain dans tout ca ?

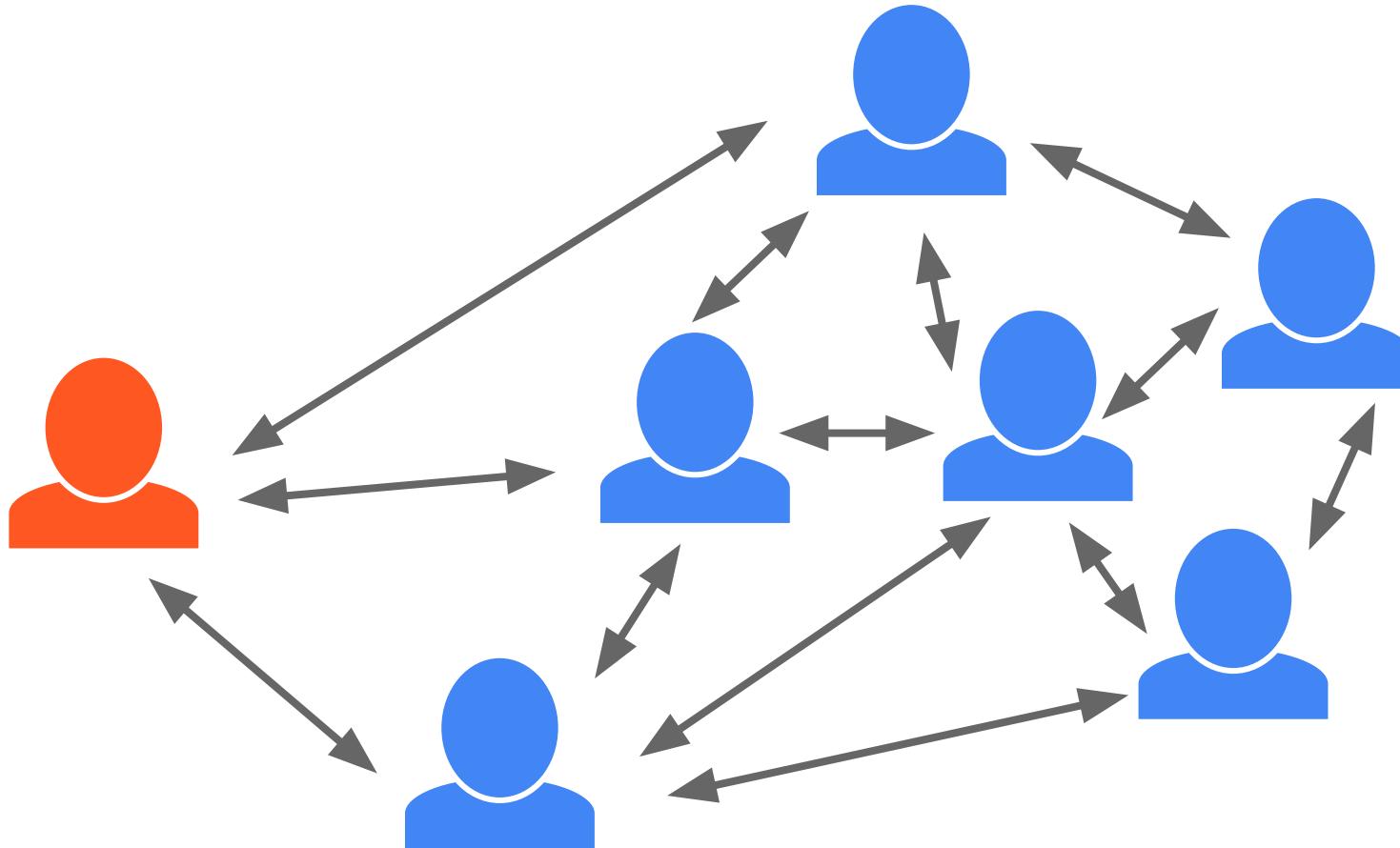


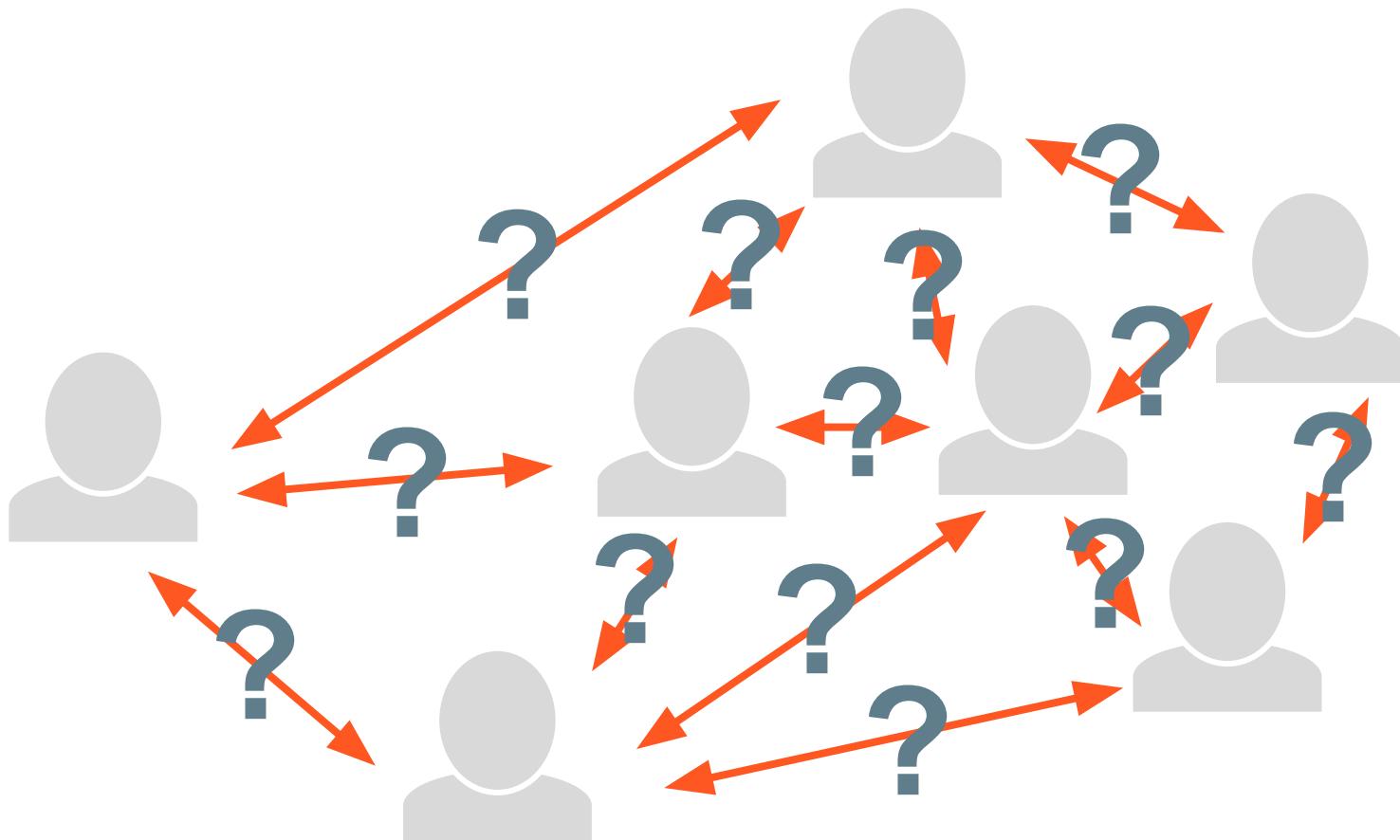
bitcoin

Gossip protocol



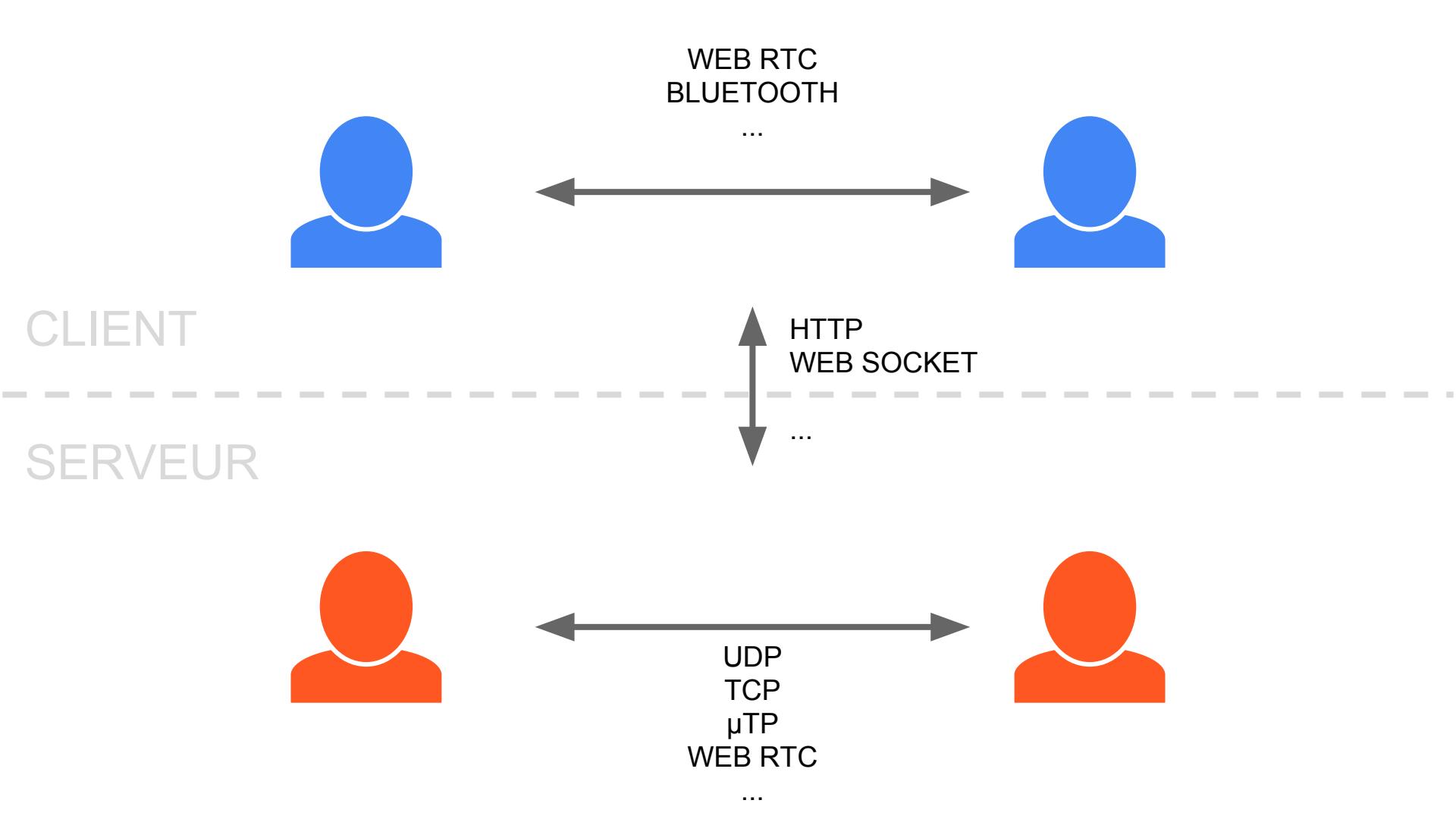
*Chaque node se connecte à un grand
nombre de nodes*

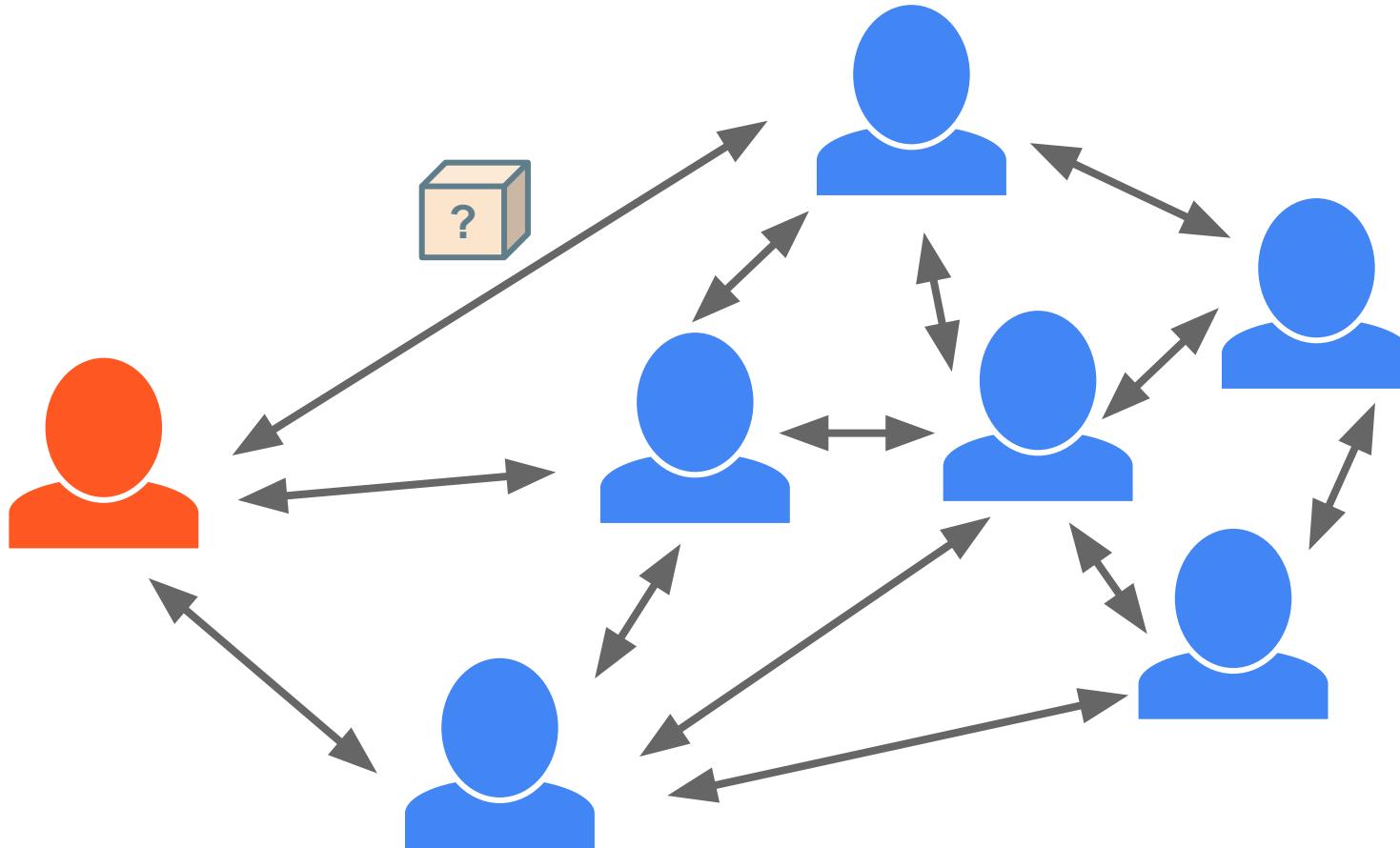






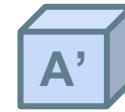
Transport







diff ?





Data integrity

Merkle “Tree”

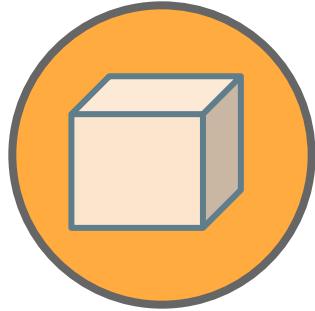
Merkle Directed Acyclic

Graph

Merkle “Tree”

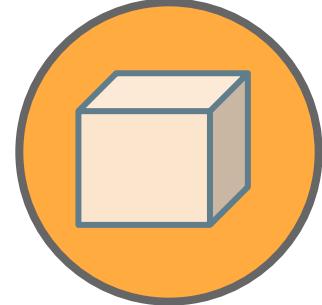
Merkle Directed Acyclic Graph



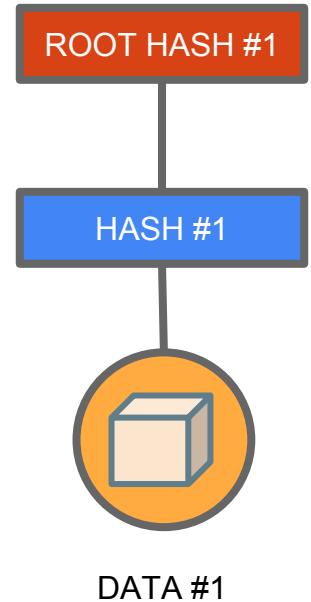


DATA #1

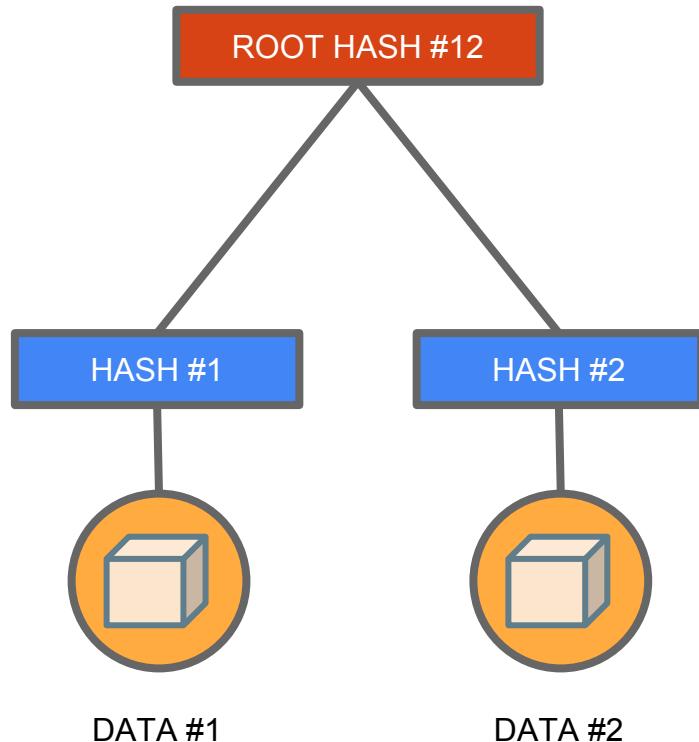
HASH #1

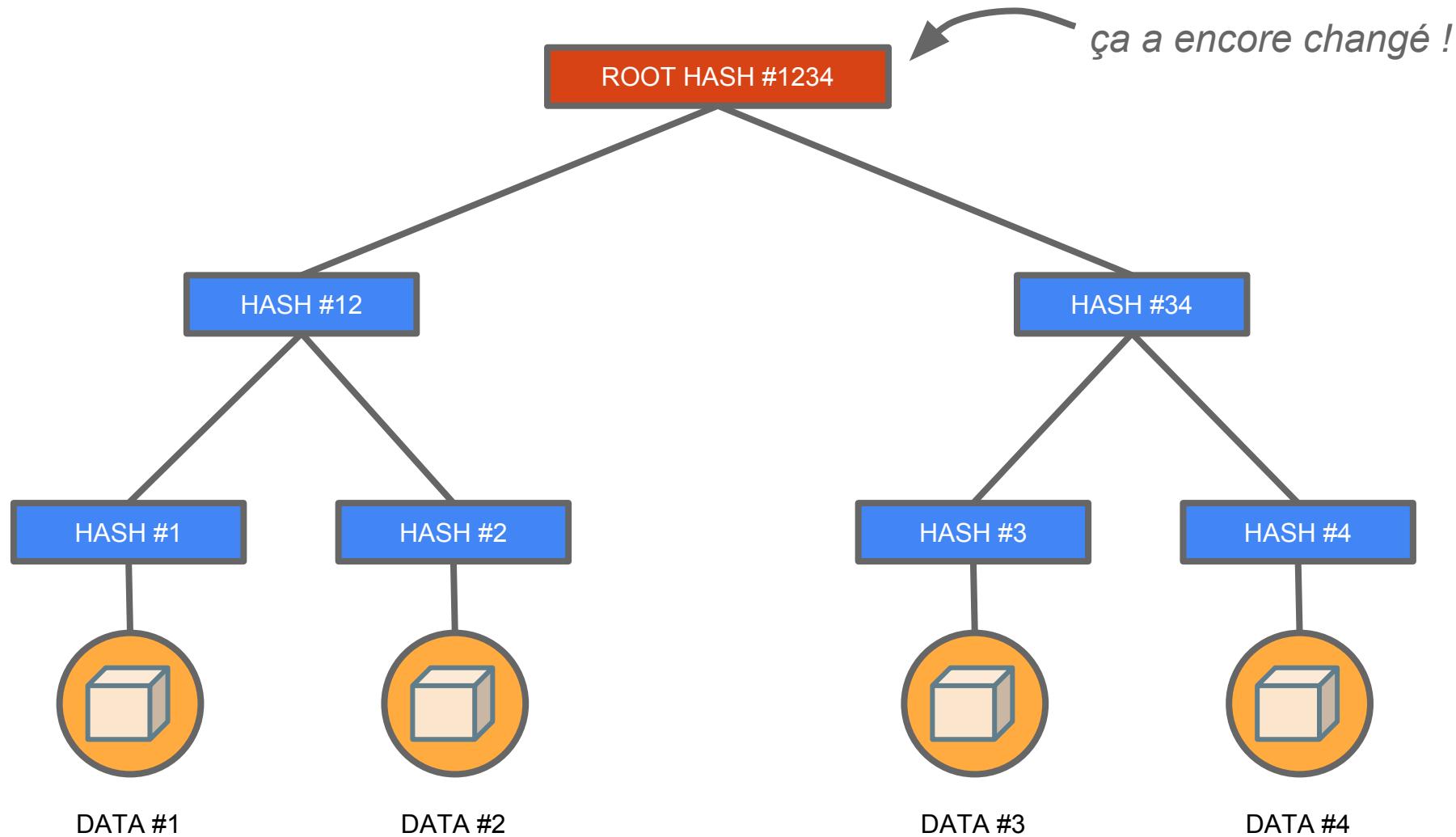


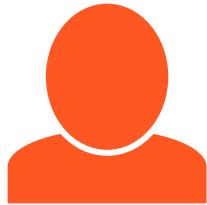
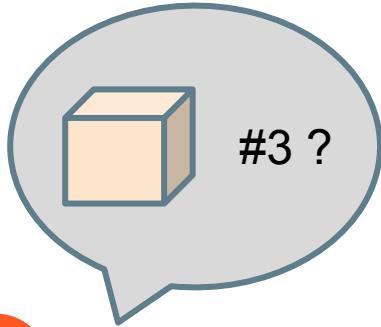
DATA #1



ça a changé !









*je connais le
root hash de
source sûre*

ROOT HASH #1234

HASH #12

HASH #34

HASH #1

HASH #2

HASH #3

HASH #4



DATA #1



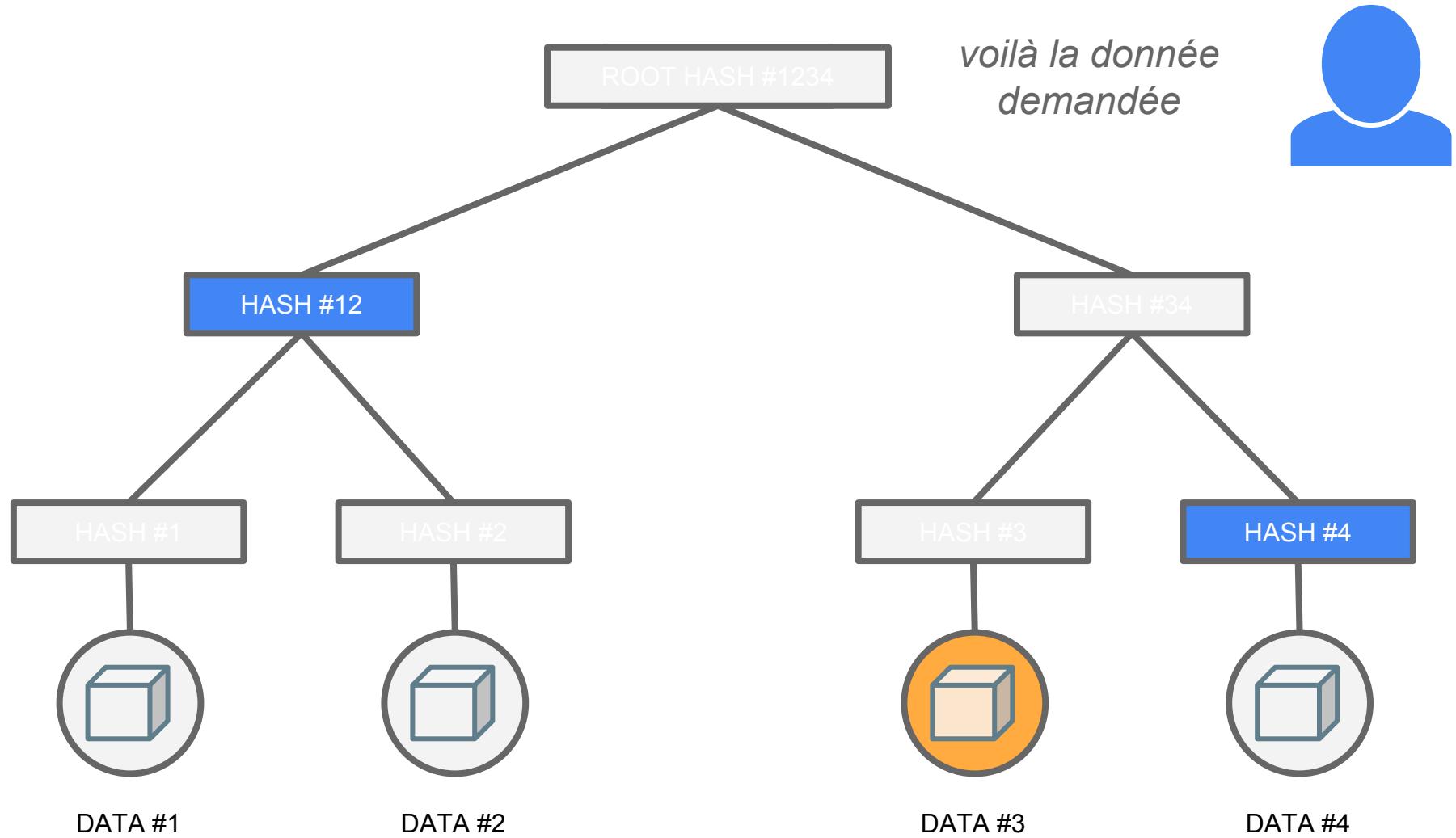
DATA #2

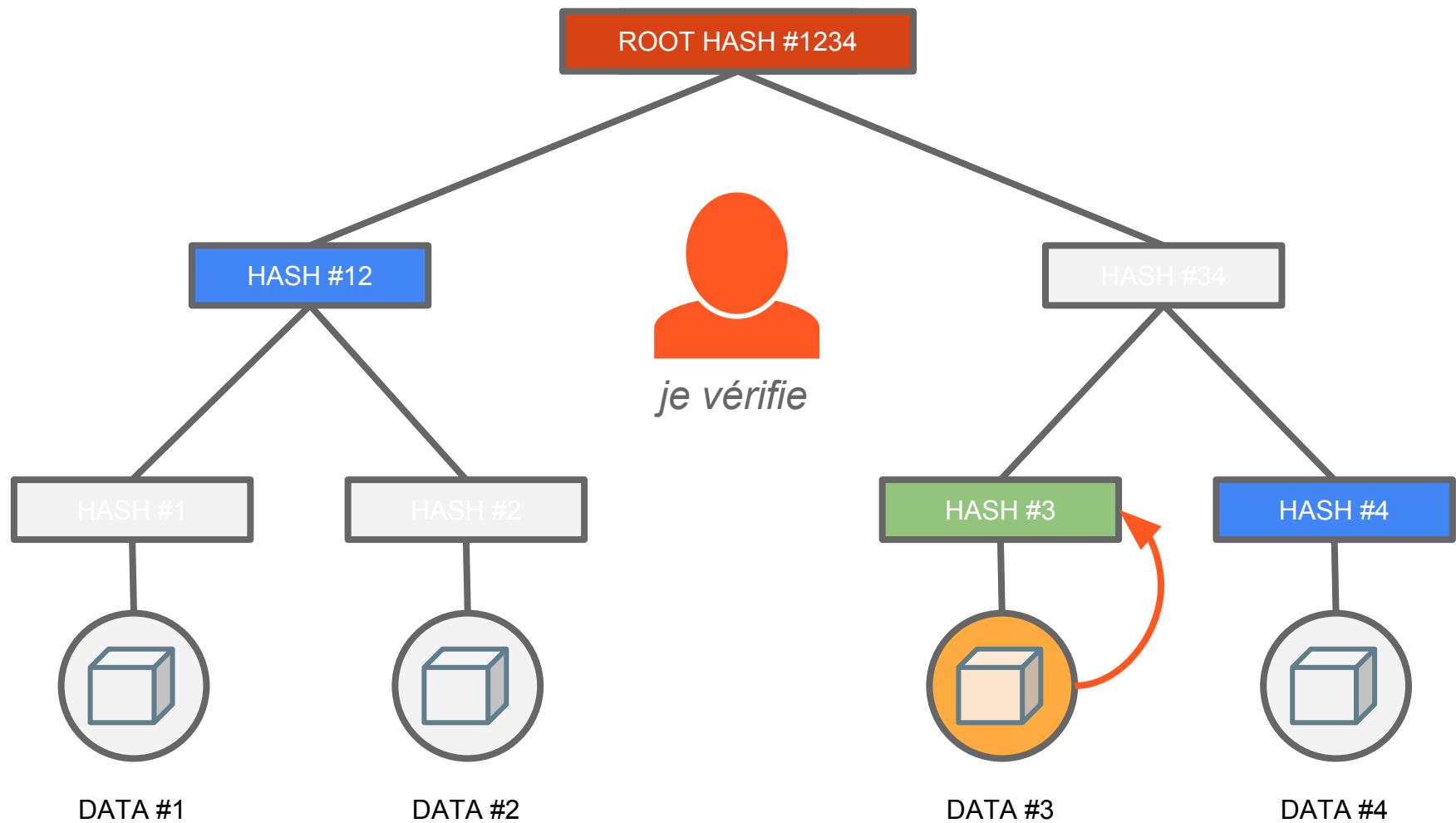


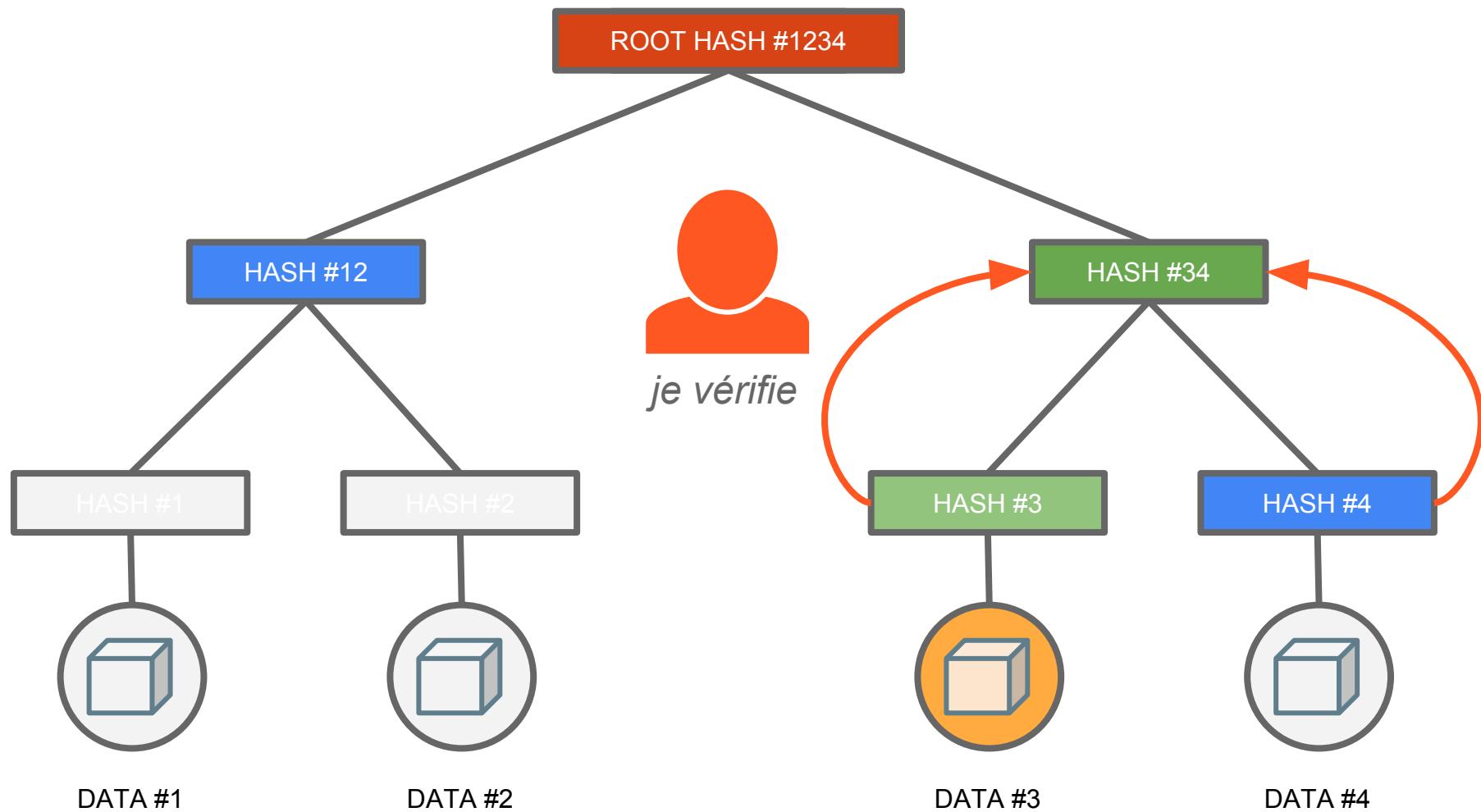
DATA #3

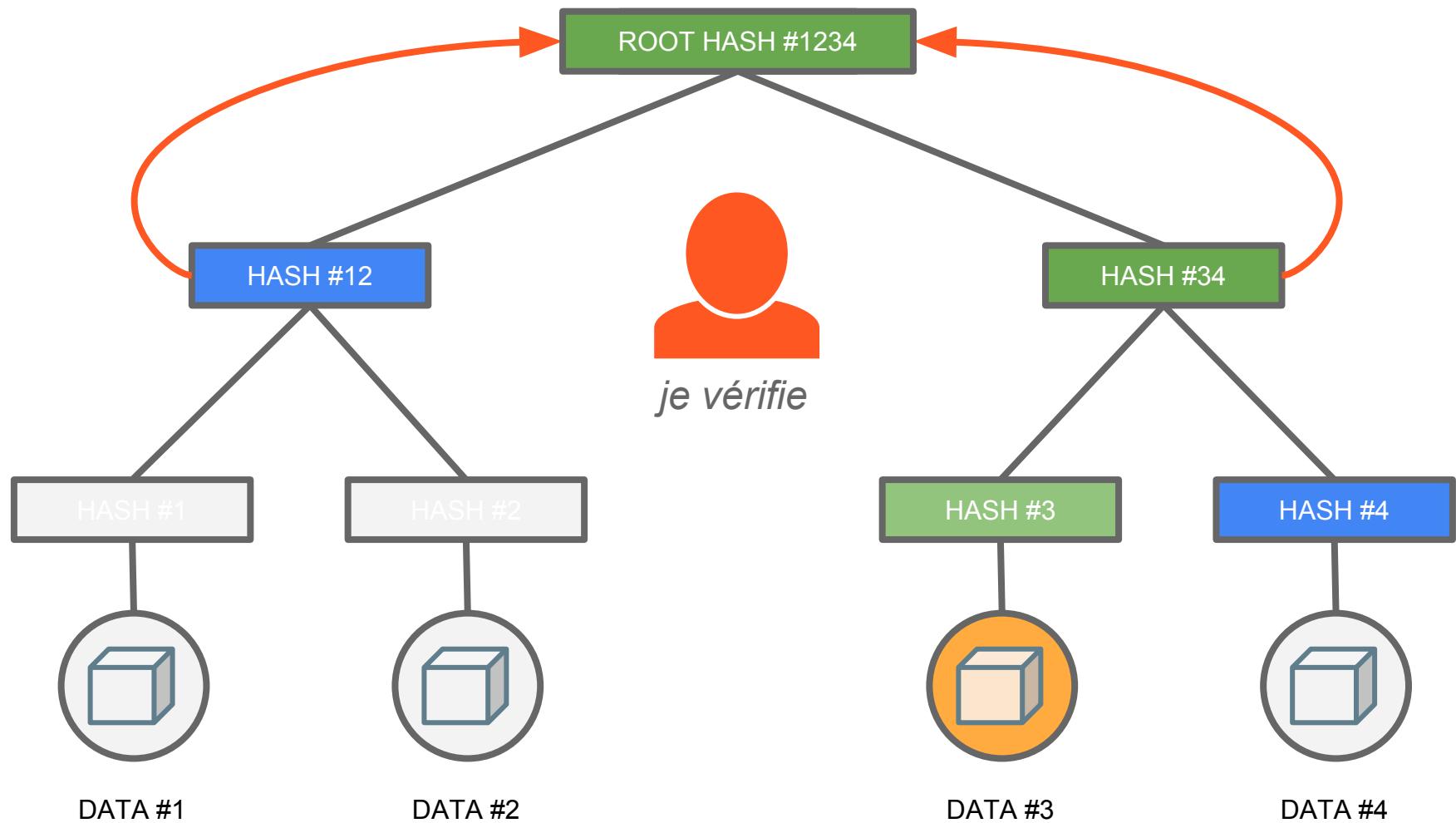


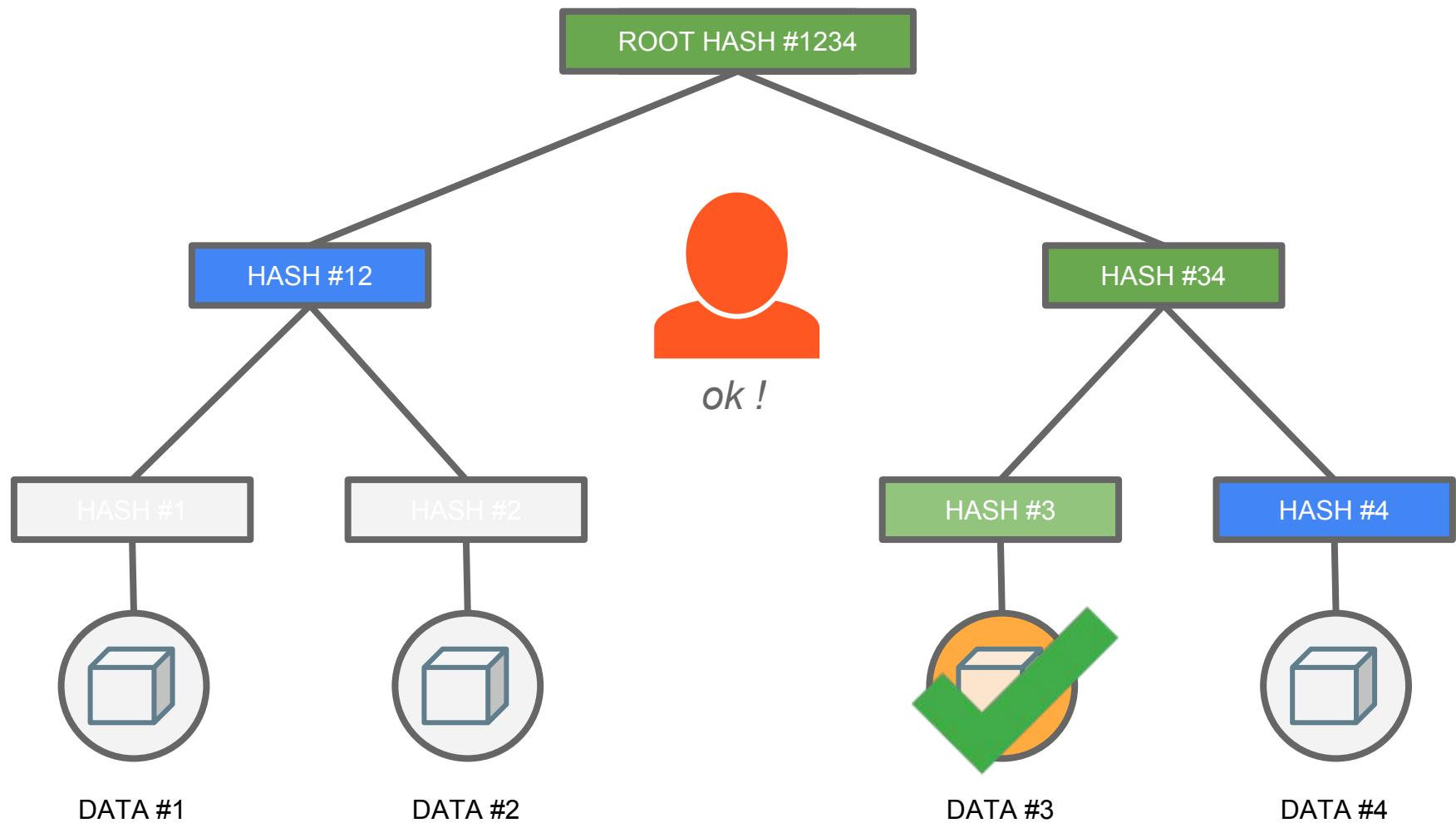
DATA #4



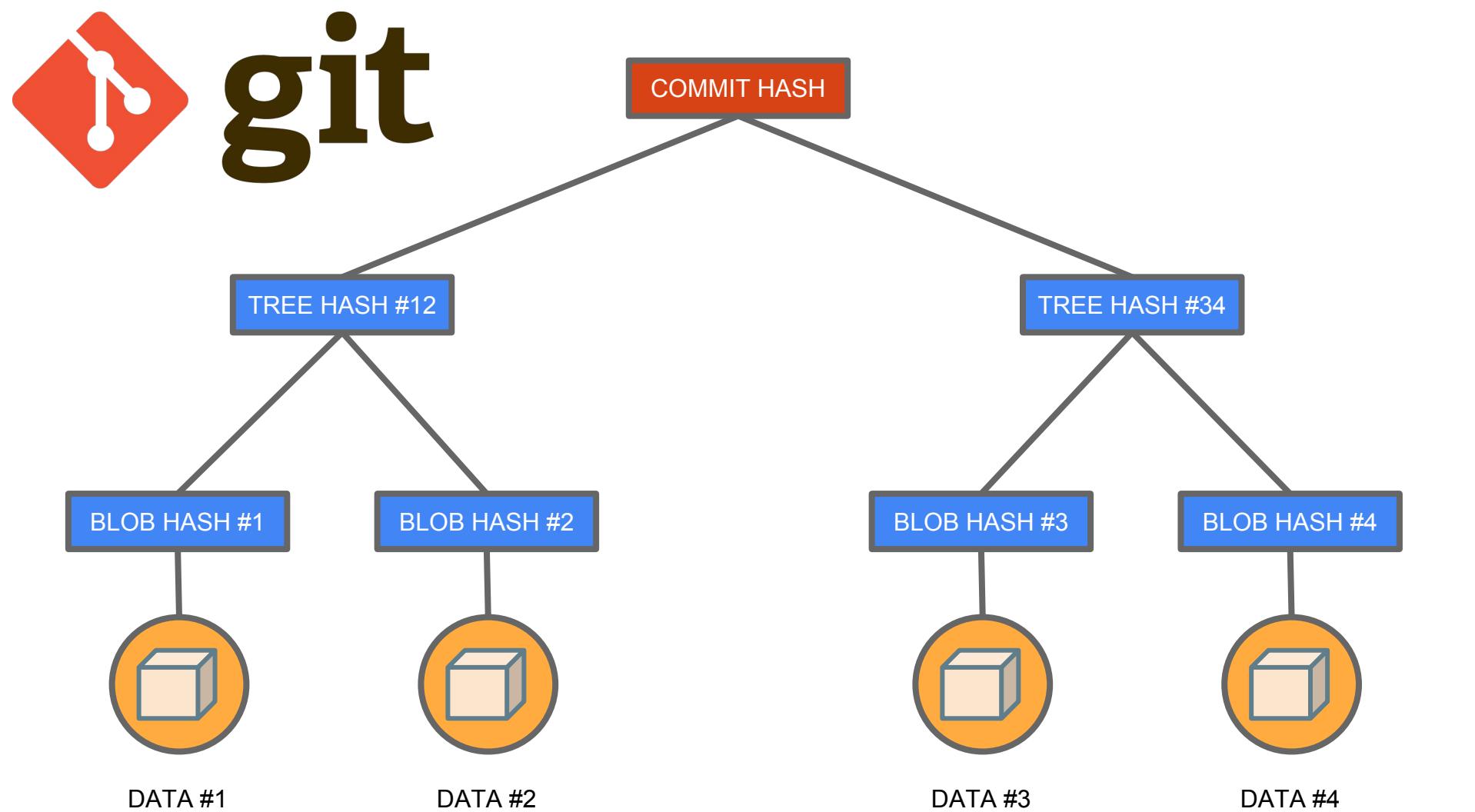


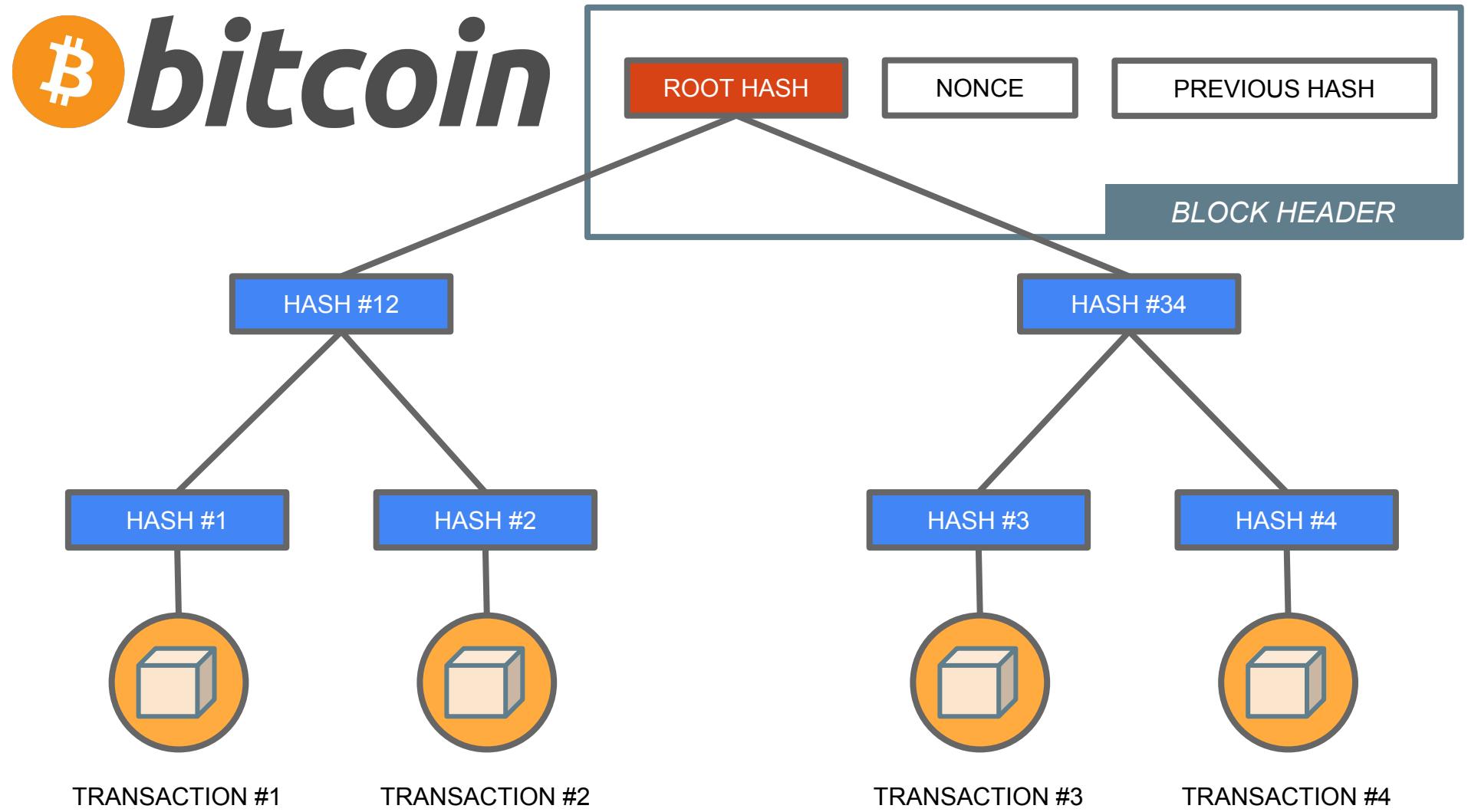






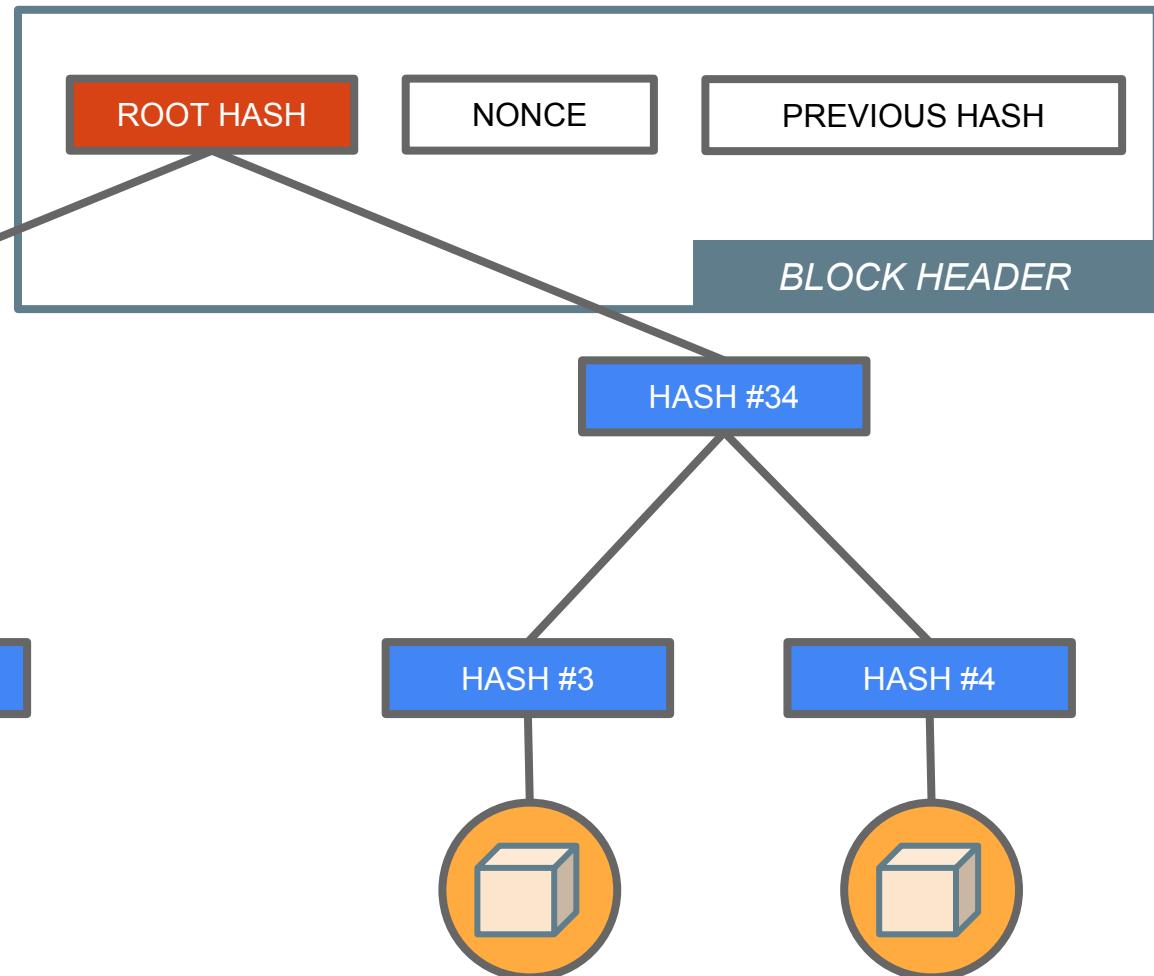
Utilisé ?







ETHEREUM



TRANSACTION #1

TRANSACTION #2

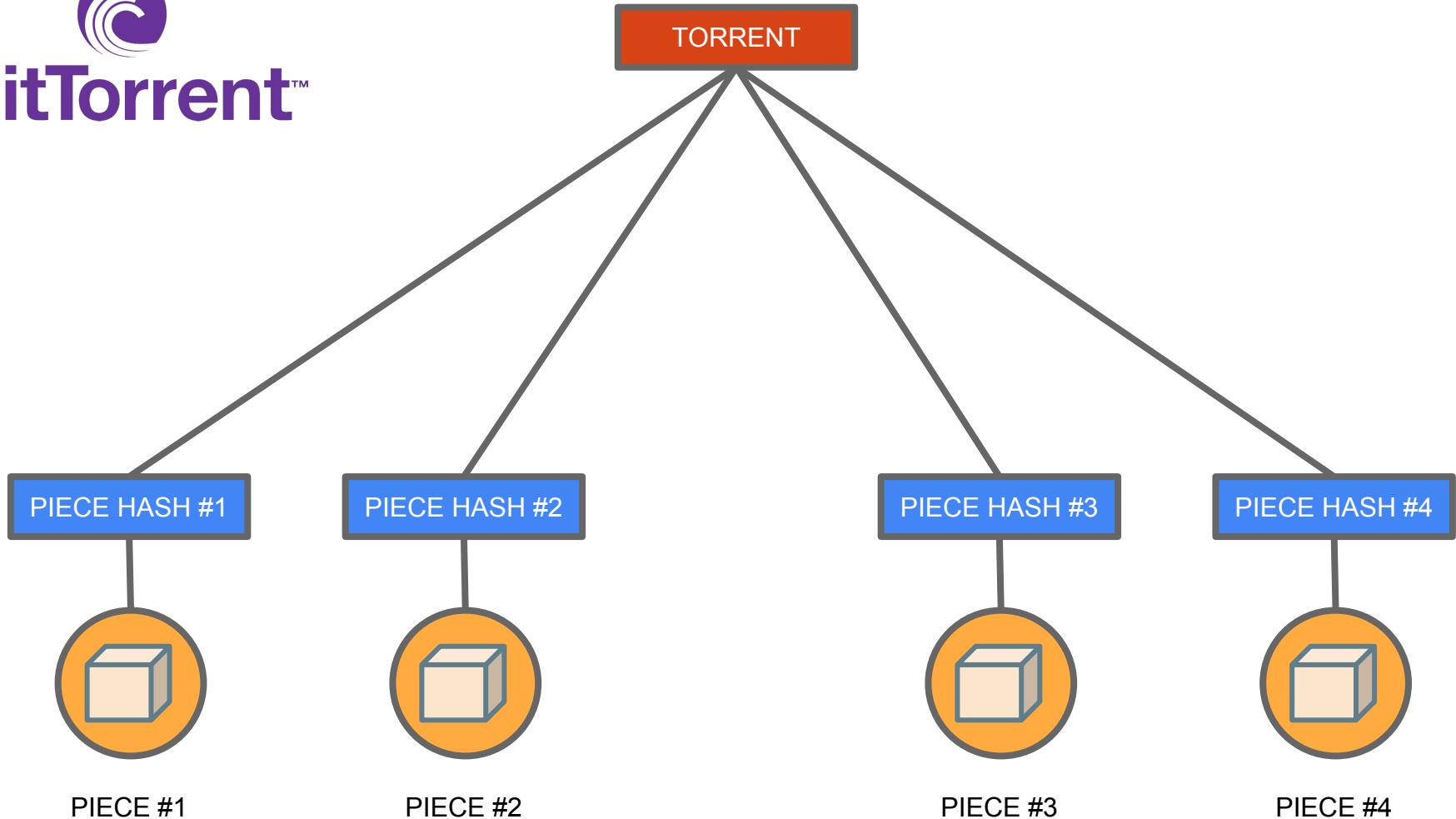
TRANSACTION #3

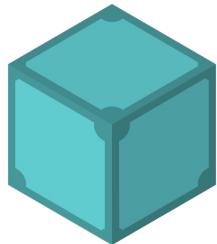
TRANSACTION #4



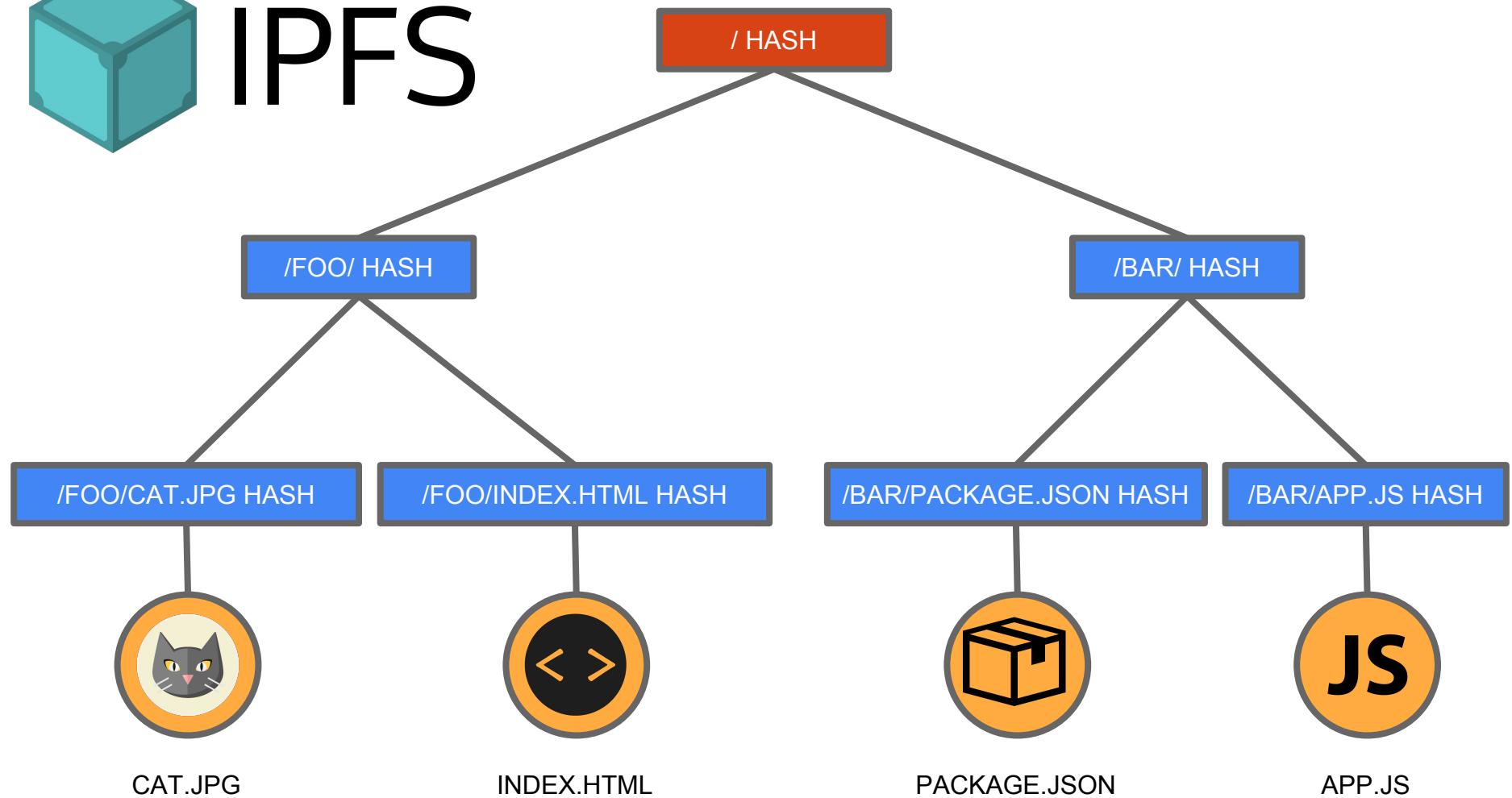
BitTorrent™

TORRENT



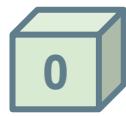
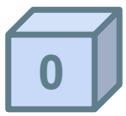


IPFS

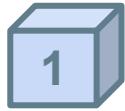




<https://ipld.io>



+1





+2





Conflict resolution



Conflict-free Replicated Data Types

CRDT ?



INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE

Conflict-free Replicated Data Types

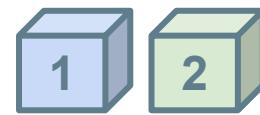
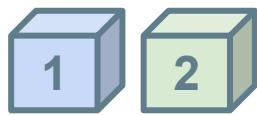
Marc Shapiro, INRIA & LIP6, Paris, France

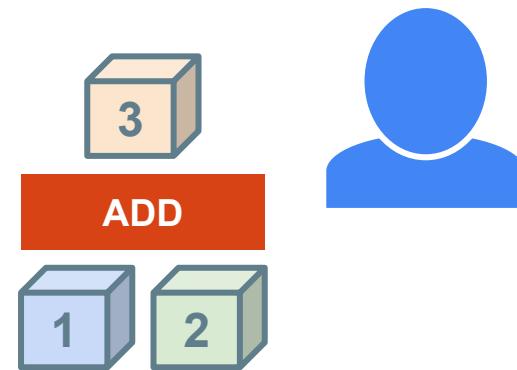
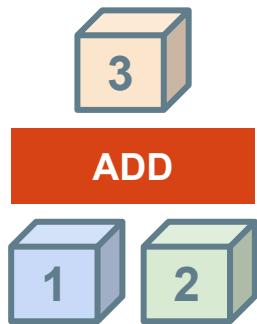
Nuno Preguiça, CITI, Universidade Nova de Lisboa, Portugal

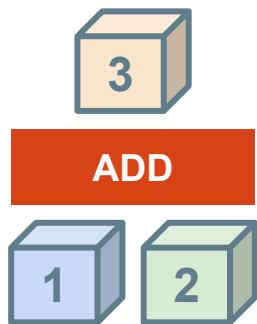
Carlos Baquero, Universidade do Minho, Portugal

Marek Zawirski, INRIA & UPMC, Paris, France

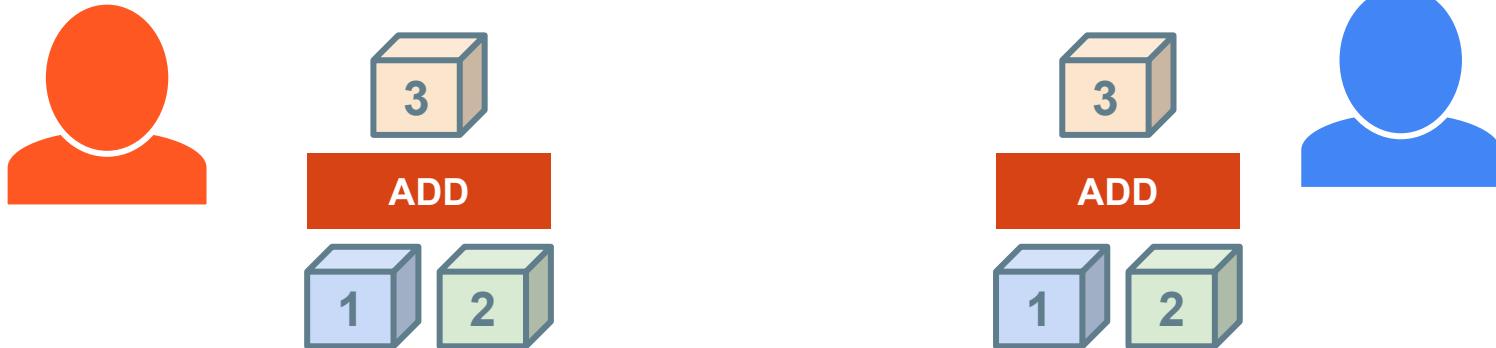








Grow-only Counter



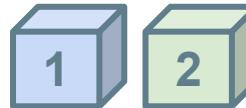
-1



ADD



ADD



-1



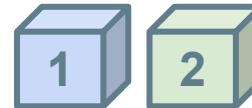
ADD



- ADD



ADD



-1



ADD



- ADD



-3



ADD



- ADD





2

ADD

1 2

- ADD

1



0

ADD

1 2

- ADD

3





-1

ADD

1 2

- ADD

1 3

-1

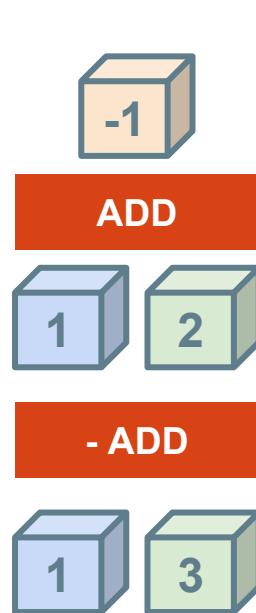
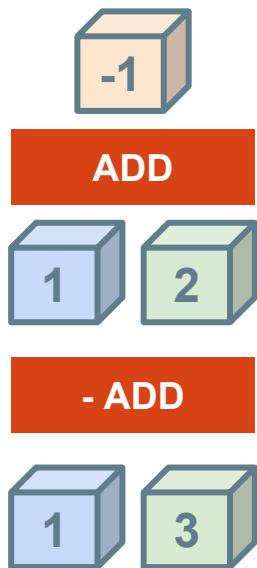
ADD

1 2

- ADD

1 3

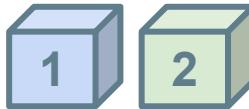




Positive-Negative Counter



ADD



- ADD



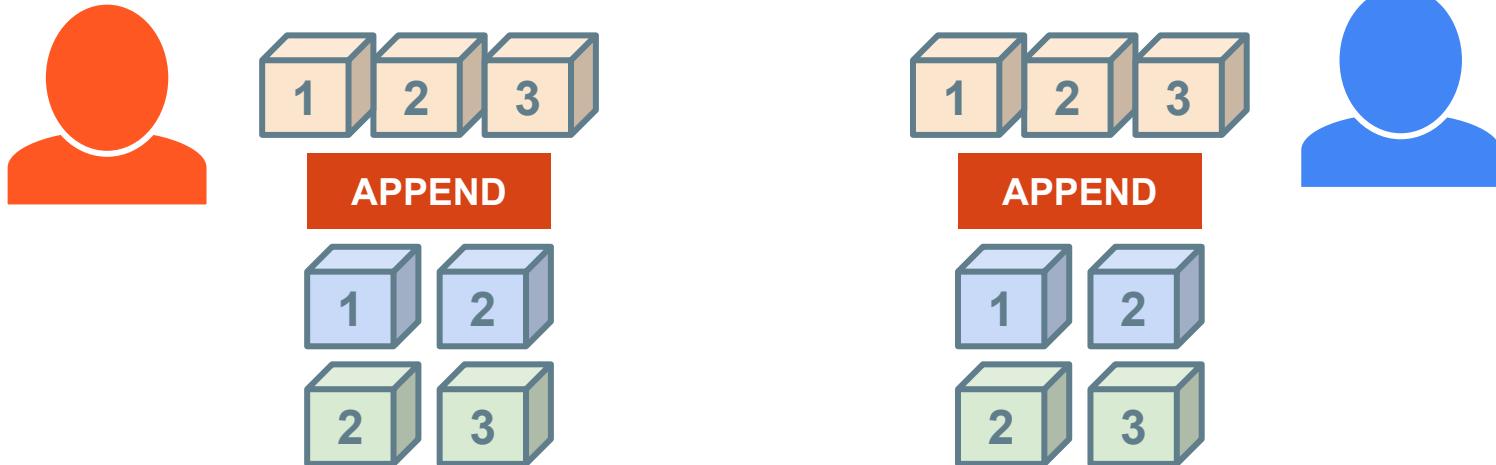
ADD



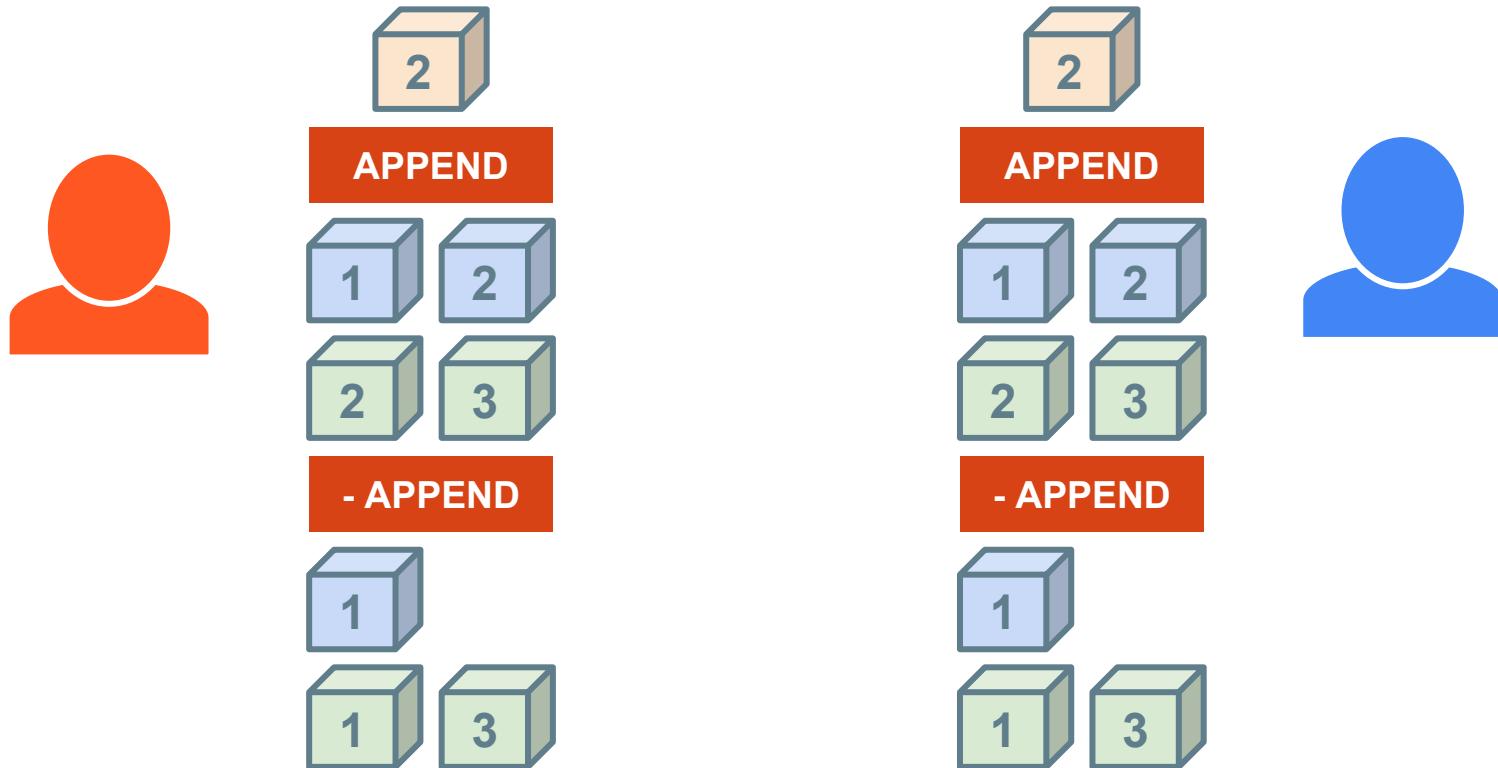
- ADD



Grow-only Set



2-Phase Set



2-Phase Set

+



Timestamp



=

Last-Write-Wins-Element-Set

OR-Set

MC-Sets

U-Set

LWW-Register

MV-Register

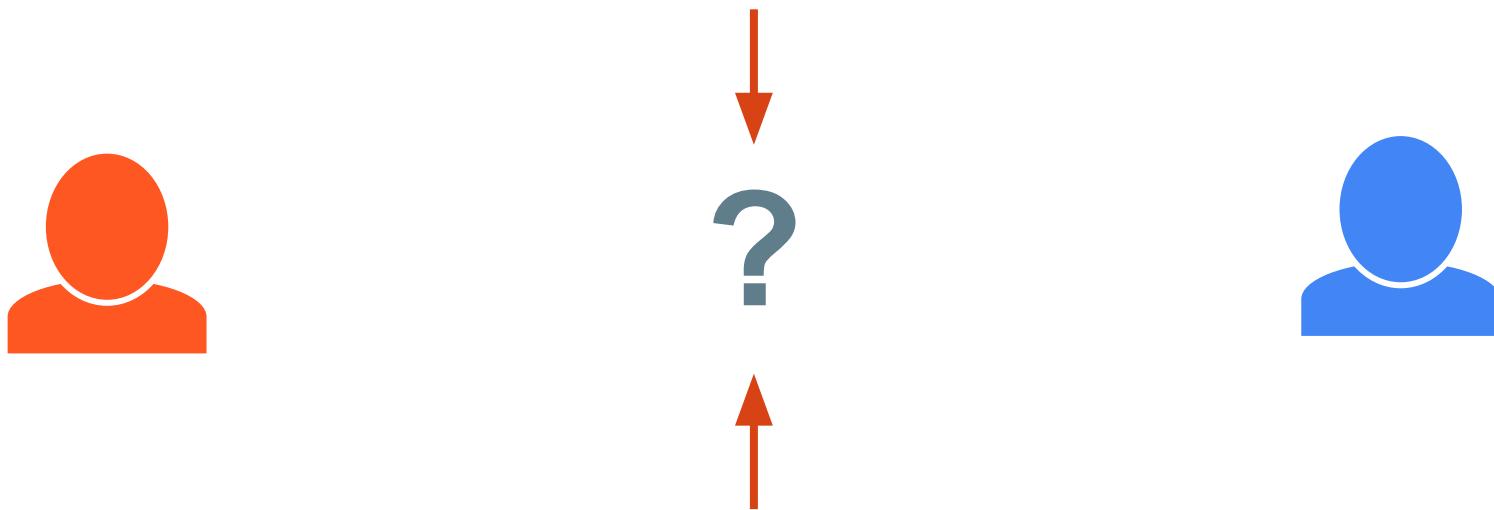


Add-only monotonic DAG

Add-Remove Partial Order

...

Compromis sur les fonctionnalités (Ajout, Suppression, Modification...)



Compromis sur la performance (bande passante, perte de paquet, mémoire...)

Utilisé ?



Bases de données distribuées



Distributed Data



SOUNDCLOUD

News feed



Chat (70M utilisateurs)



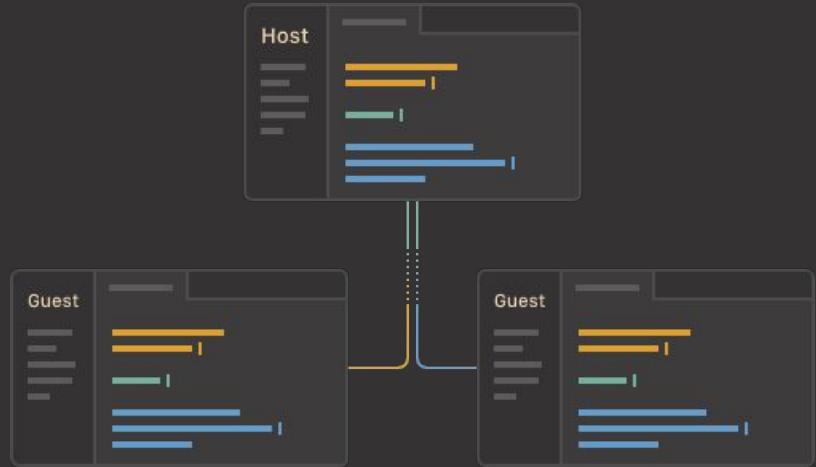
Sync. des localisations
favorites

Mais aussi...



Collaborate in real time in Atom

Teletype^(beta) for Atom lets developers share their workspace with team members and collaborate on code in real time.



Mais aussi...

Démo

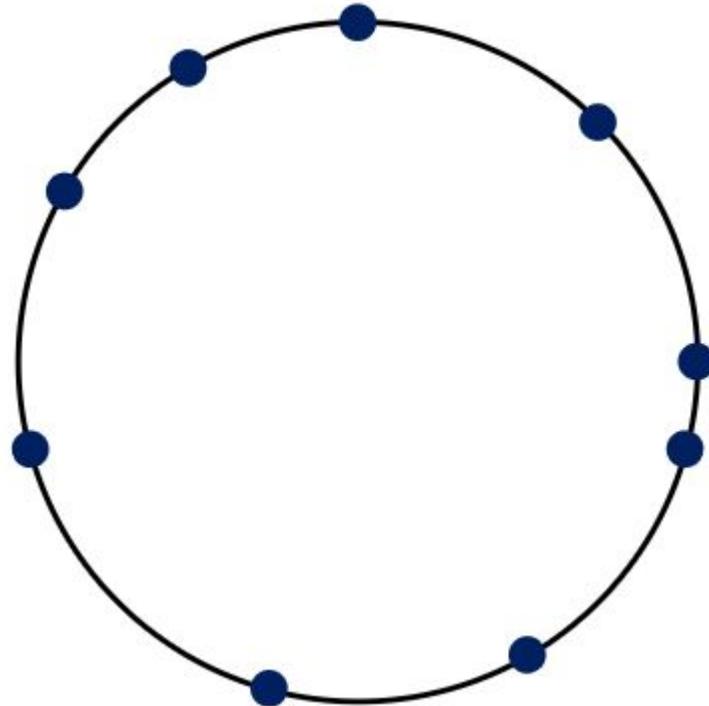
à la fin...

<https://acailly.github.io/roti/>

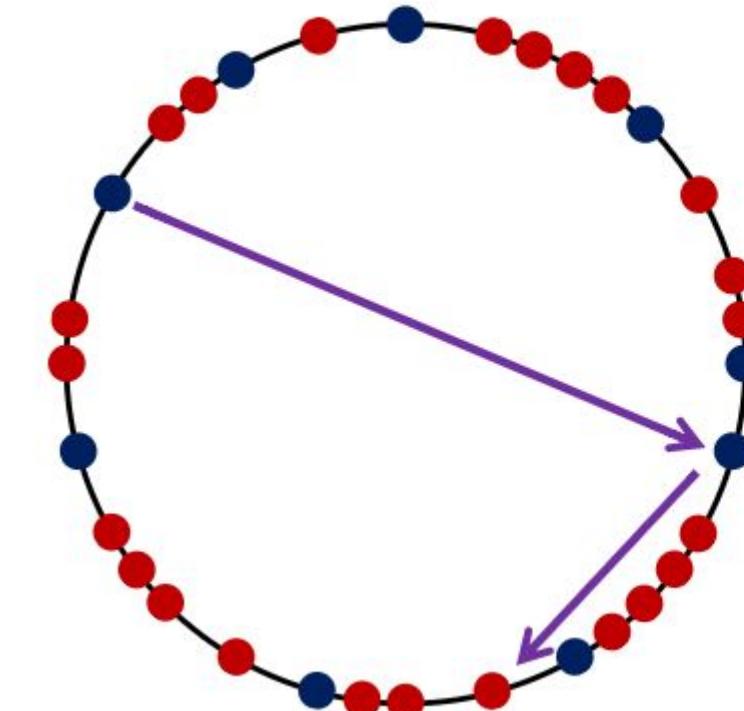


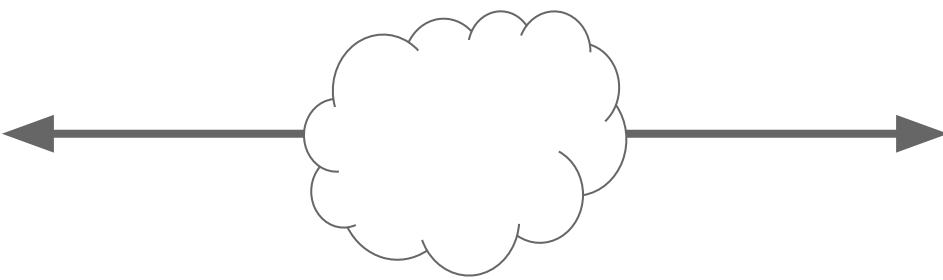
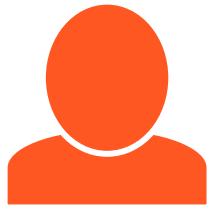
Et si on quittait le monde des bisounours ?

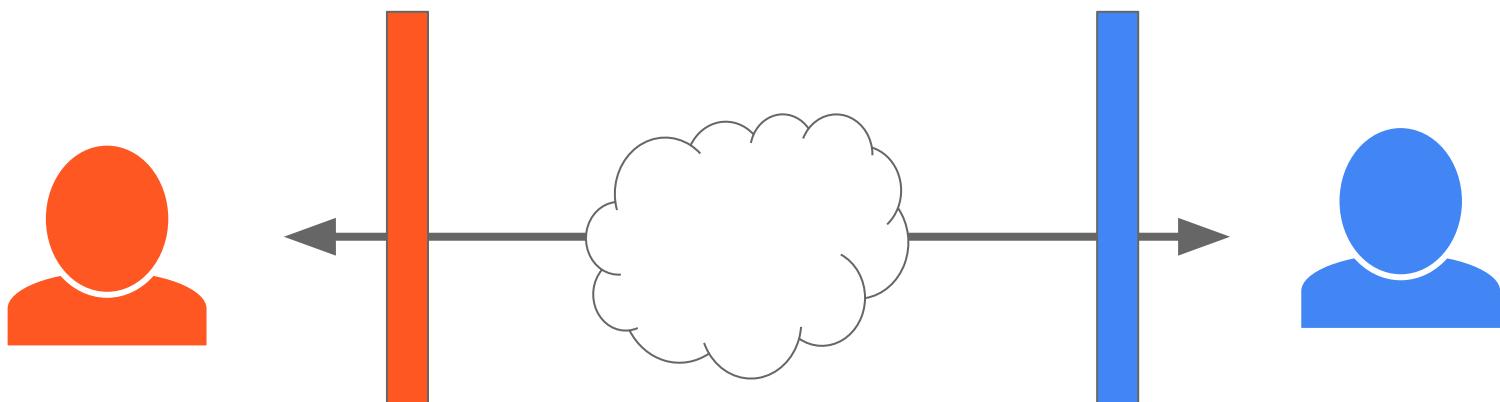
Sybil attack



Brute-force attack







Réseau privé

Réseau public

Réseau privé

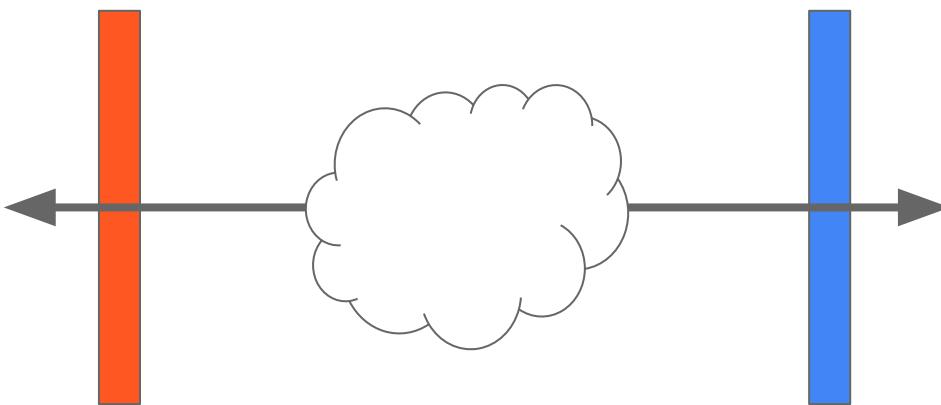
NAT Traversal



Session Traversal Utilities for NAT (STUN)

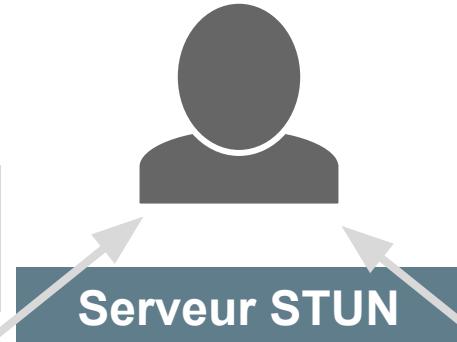


Adresse IP
privée



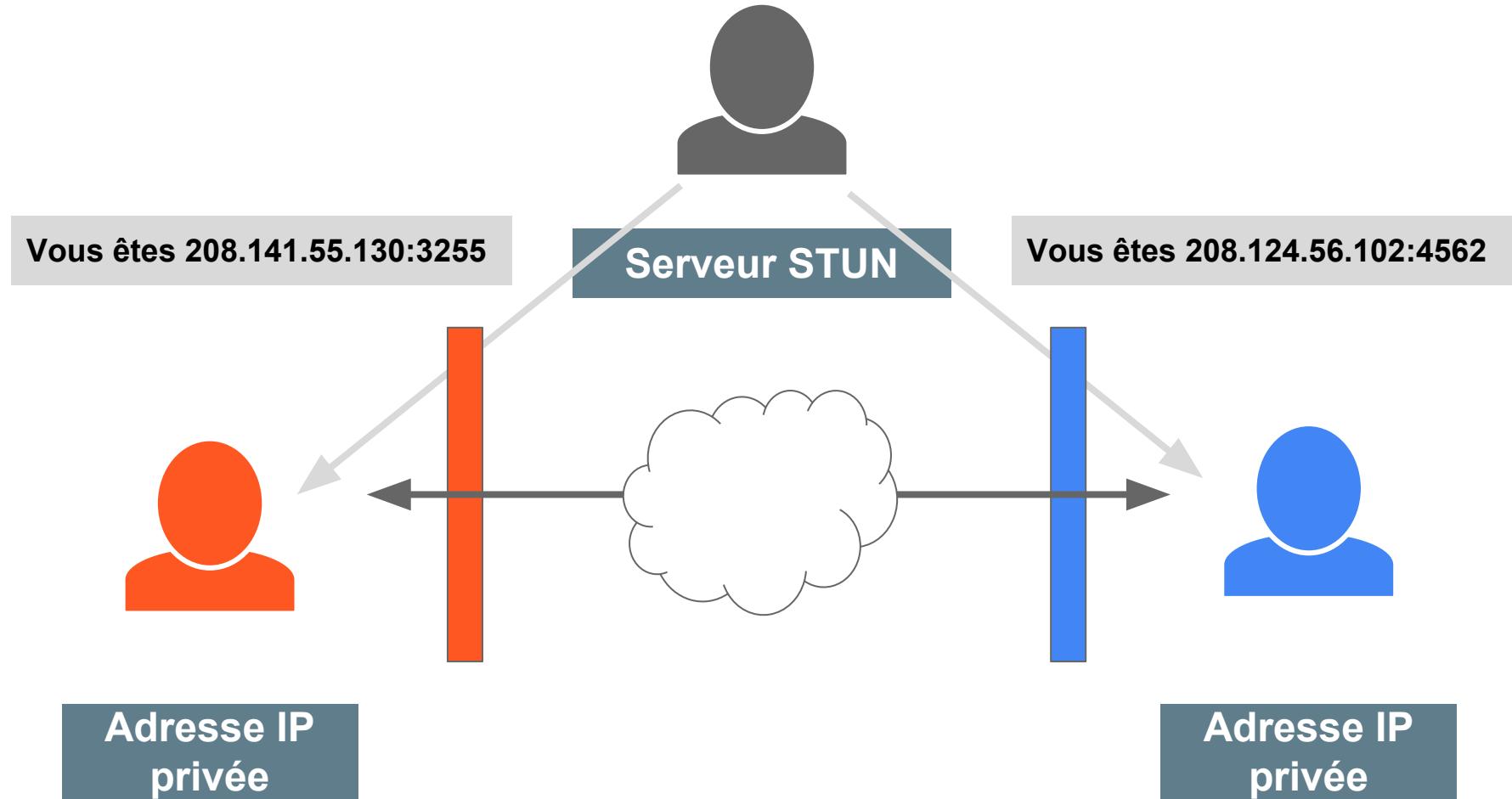
Adresse IP
privée

Quelle est mon adresse IP publique ?
Suis-je accessible de l'extérieur ?



Adresse IP
privée

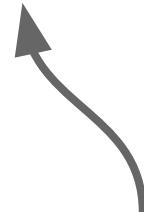
Adresse IP
privée



Adresse publique du routeur

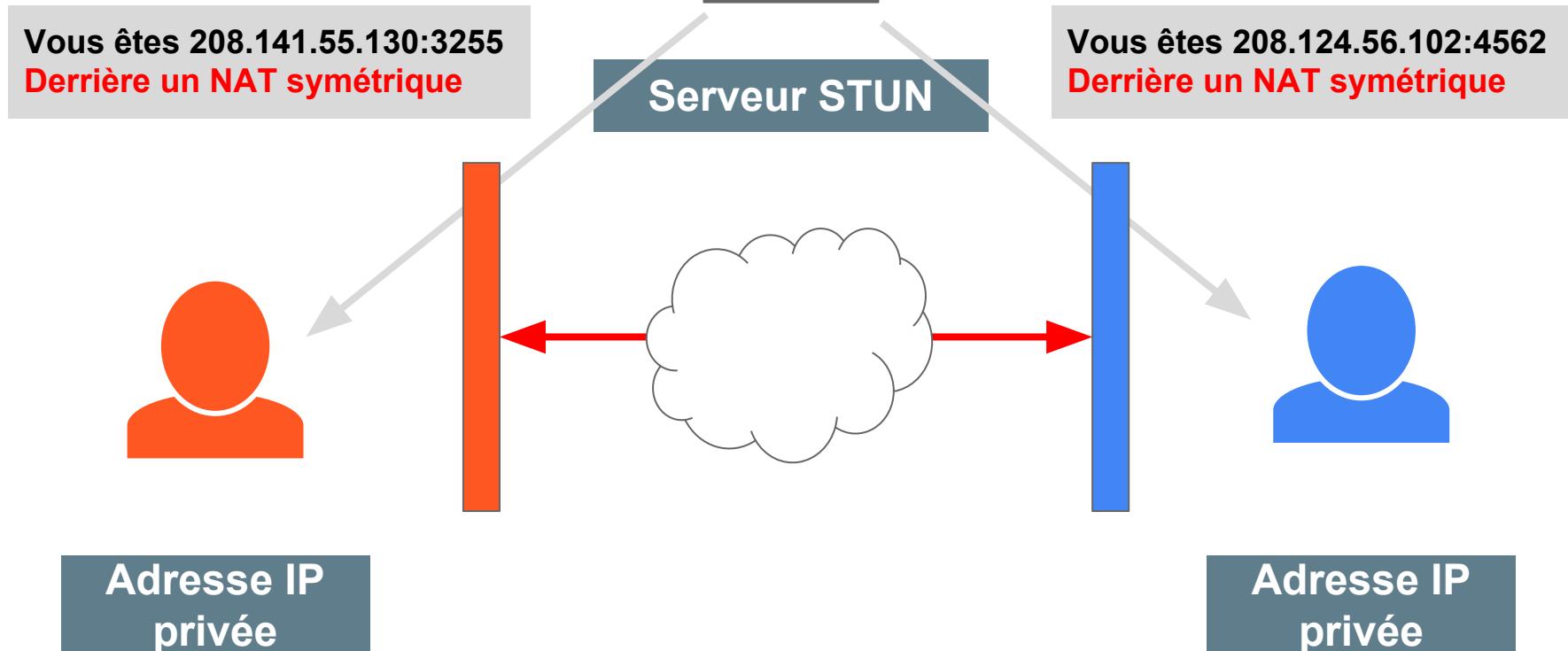


208.141.55.130:3255

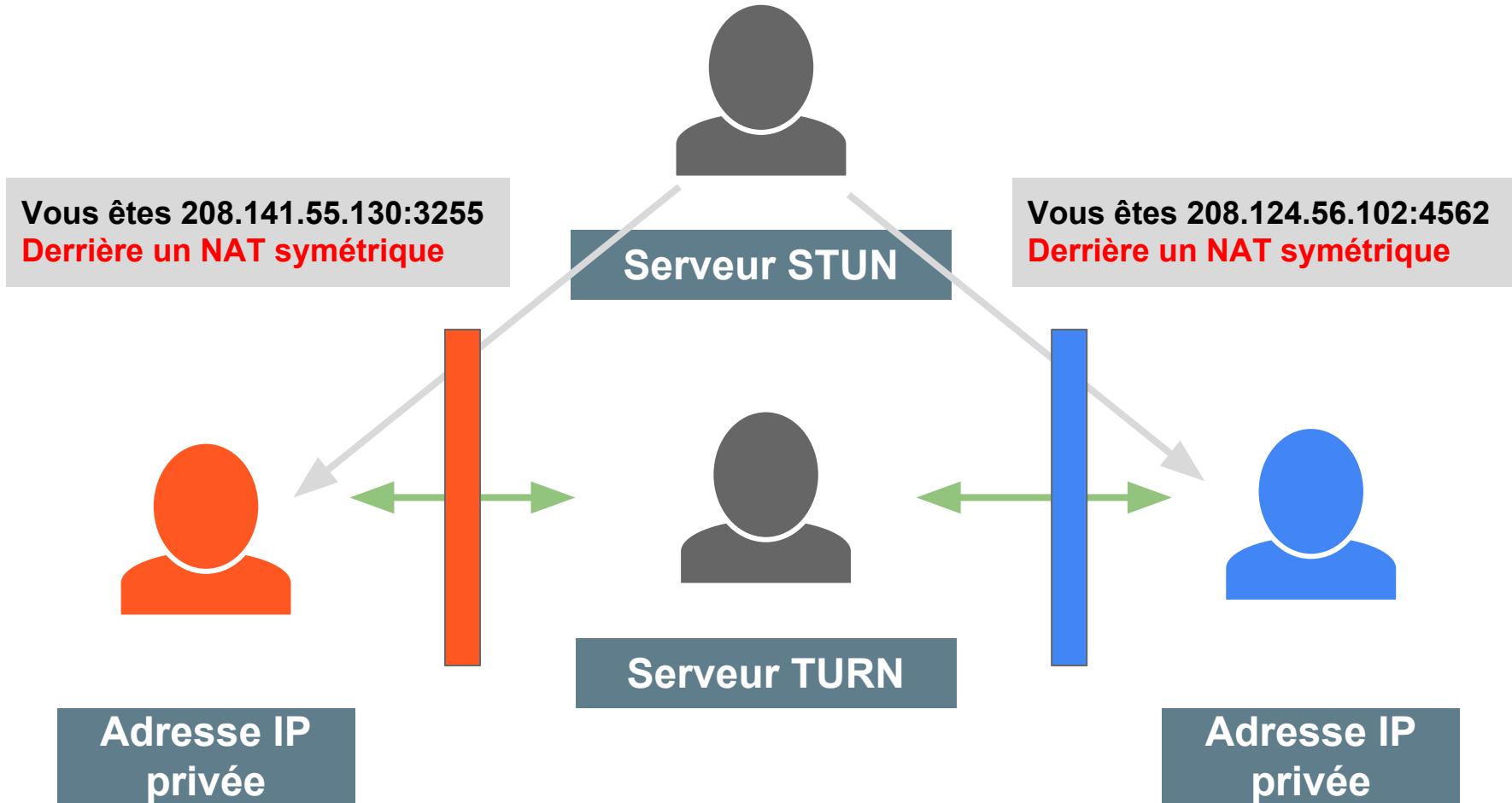


Port unique pour chaque device
derrière le routeur

Qui n'accepte que les connexions entrante s'il y a une connexion sortante sur ce pair



Traversal Using Relays around NAT (TURN)



**Que nous
réserve le futur ?**







Scalabilité ?

Impact écologique ?

Arnaques ?

Centralisation ?



True data ownership

Users should have the freedom to choose where their data resides and who is allowed to access it. By decoupling content from the application itself, users are now able to do so.



Modular design

Because applications are decoupled from the data they produce, users will be able to avoid vendor lock-in, seamlessly switching between apps and personal data storage servers, without losing any data or social connections.



Reusing existing data

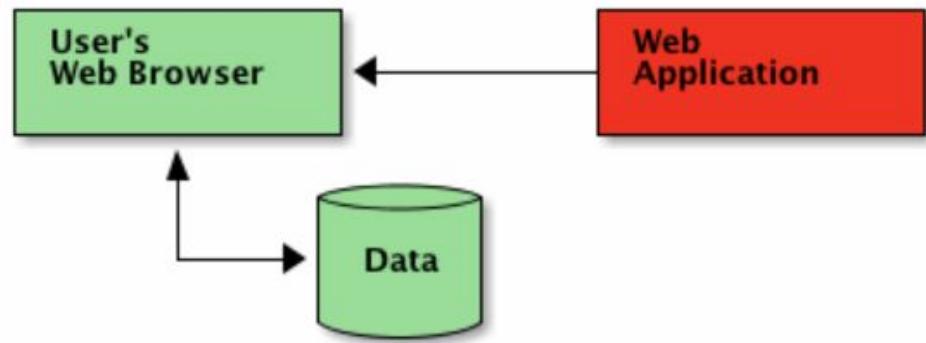
Developers will be able to easily innovate by creating new apps or improving current apps, all while reusing existing data that was created by other apps.



remoteStorage

An open protocol for per-user storage on the Web

<https://remotestorage.io/>



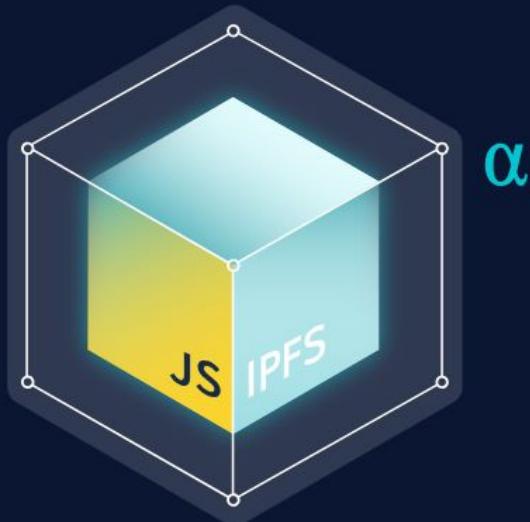
<https://unhosted.org/>

IPFS is the Distributed Web

A peer-to-peer hypermedia protocol
to make the web faster, safer, and more open.

Try it

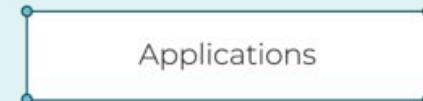
Watch demo



A full P2P protocol written entirely in JavaScript

js-ipfs paves the way for the Browser implementation of the IPFS protocol. Written entirely in JavaScript, it runs in a Browser, a Service Worker, a Web Extension and Node.js, opening the door to a world of possibilities.

The IPFS Stack

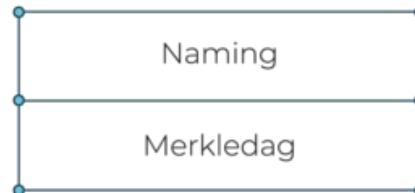


Using the Data

IPNS



IPLD



Defining the Data



libp2p



Moving the Data

<https://www.coindesk.com/257-million-filecoin-breaks-time-record-ico-funding/>



\$257 Million: Filecoin Breaks All-Time Record for ICO Funding

Sep 7, 2017 at 20:45 UTC by Stan Higgins

[BLOG](#)[WHAT WE DO](#)[SUPPORT](#)[COMMUNITY](#)

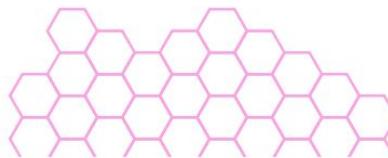
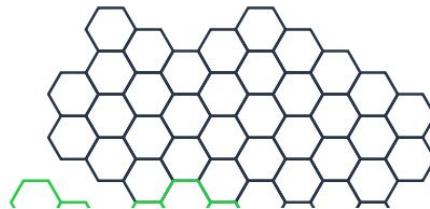
Cloudflare goes InterPlanetary - Introducing Cloudflare's IPFS Gateway

17 Sep 2018 by [Andy Parker](#).

<https://blog.cloudflare.com/distributed-web-gateway/>

dat:// – a peer-to-peer protocol

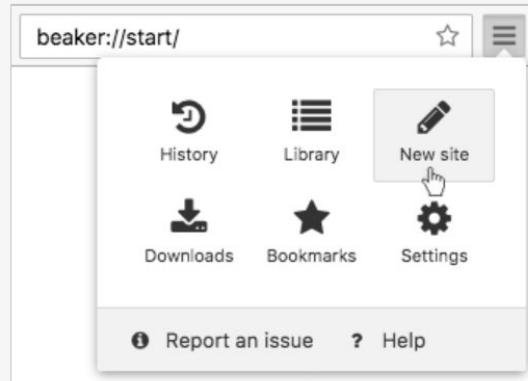
A community-driven project powering a next-generation Web



Rethink the Web browser

Beaker is a peer-to-peer browser with tools to create and host websites. Don't just browse the Web, build it.

<https://beakerbrowser.com/>



Can your browser do this?



None of us are as smart as all of us.

Fork



@leokewitz
December 13th, 2017
3 min read

New release 0.2.0

I'm really happy to announce that I finally learned how to version ^[^1]! Also there are a lot of new features!

Footnotes

As you might noticed one of the new features is being able to add footnotes ^[^2]. Footnotes can be inlined or manually referenced.

```
This is how you manually[^manual] reference something[^1].
```

```
This is how you add inline^[You don't need to specify inlined notes at the end of the file.] notes.
```

...

```
// In the end of the file...
```

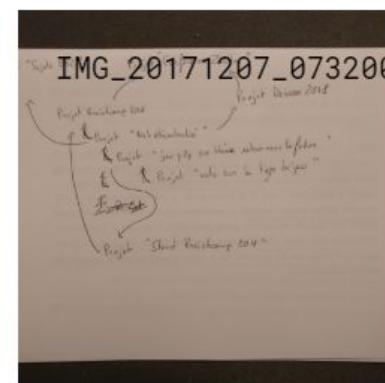
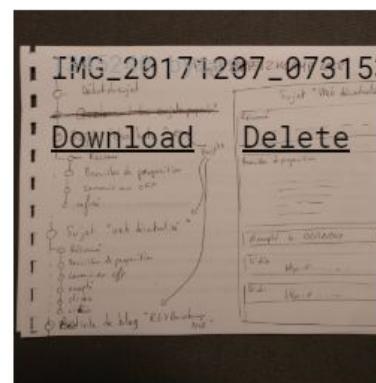
[^1]: This is a manual note.
[^manual]: This is an inlined note.

<https://github.com/kewitz/dat-medium>

kontain 0.0.4

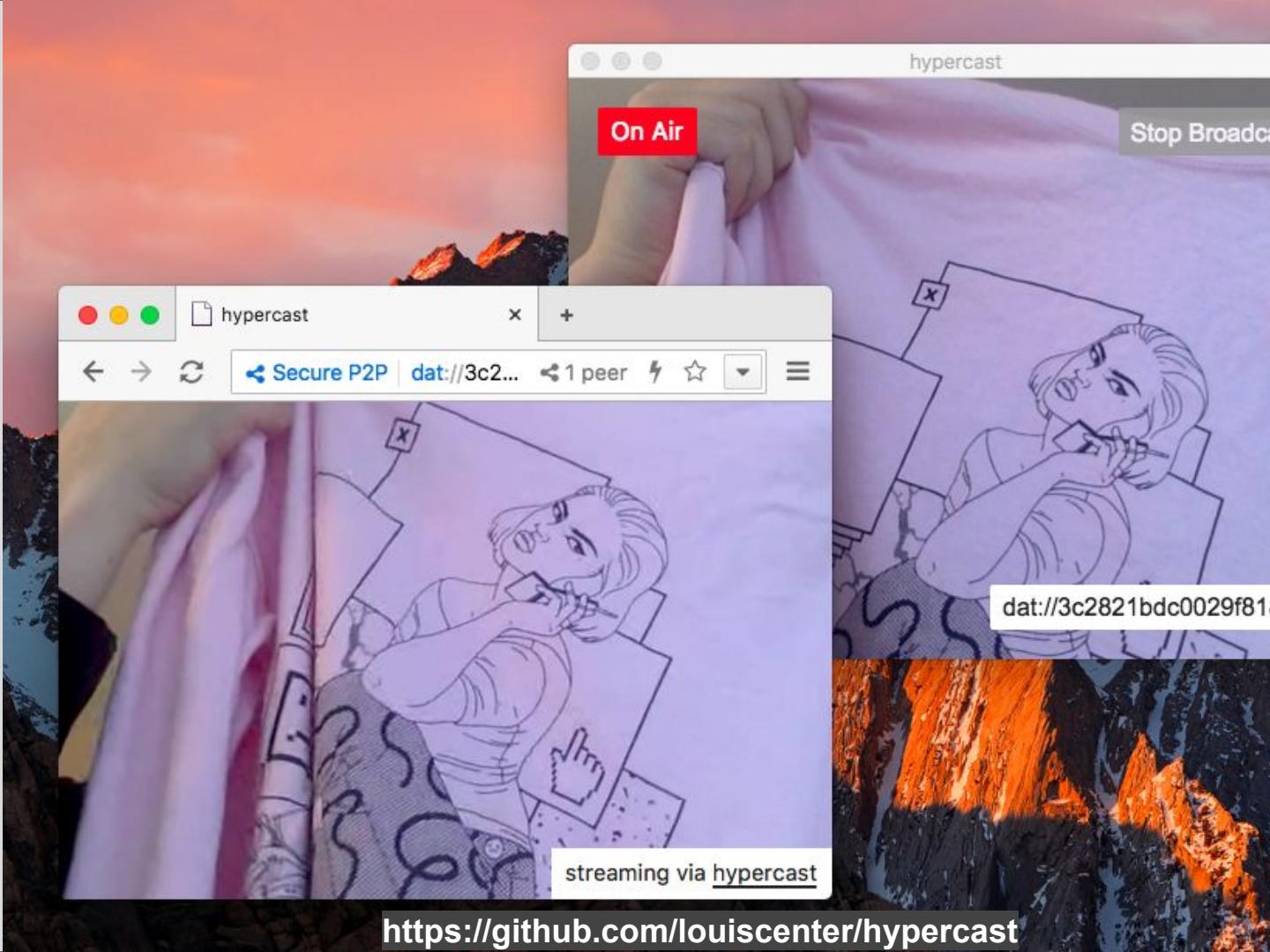
peer-to-peer file sharing

drop files anywhere

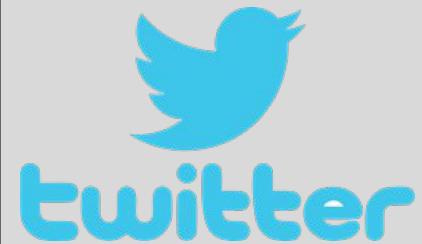


<http://hex22.org/projects/ntain/>





<https://github.com/louiscenter/hypercast>



Home Notifications Settings acailly | New post

Paul Frazee Following

Web nerd re-decentralizing the Web. Unblockchain consultant. Founder of the Beaker browser and Hashbase. Previously Secure Scuttlebutt.

Make sure your profile stays online! Share your profile URL with a public peer like Hashbase.

Feeling ambitious? Deploy your own public peer.

[Copy your profile URL](#)

Who to follow

Tim Caswell [Follow](#)

Ross Schulman [Follow](#)

Sander Moolin [Follow](#)

PsaeBrai [Follow](#)

Posts

68

Following

39

Paul Frazee · 4d ago
No need to fret that you're missing frets. Fritter now tells you (once again) when there are new frets.
[Reply](#) [Heart](#)

Paul Frazee · 4d ago
Fritter update was published. You shouldn't need to be afraid to click on links anymore.
[Reply](#) [Heart](#)

Paul Frazee · 4d ago
Doing some work on Fritter today, fixing some of the annoying things like the issue clicking on links and the lack of "new posts" notification. Also going to look at Sander's mentions PR (finally!). Also using this to QA our 0.8 fork & edit flows... which needs a little work but it's working ok so far.
[Reply](#) [Heart](#)

Paul Frazee · 4d ago
Replying to this post
Cool idea! I'm certain people will find that interesting and worth talking about.
[Reply](#) [Heart](#)

<https://github.com/beakerbrowser/fritter>

Mozilla Add-ons Blog

<https://blog.mozilla.org/addons/2018/01/26/extensions-firefox-59/>



Extensions in Firefox 59

Support for Decentralization Protocols

Mozilla has always been a [proponent of decentralization](#), recognizing that it is a key ingredient of a healthy Internet. Starting with Firefox 59, several protocols that support decentralized architectures are approved for use by extensions. The newly approved protocols are:

- [Dat Project](#) (dat://)
- [IPFS](#) (dweb:// ipfs:// ipns://)
- [Secure Scuttlebutt](#) (ssb://)

Firefox [itself](#) does not implement these protocols, but having them on the approved list means the browser recognizes them as valid protocols and extensions are free to provide implementations.

VENDREDI
10H30



<https://www.scuttlebutt.nz/>



Paris, le 20/04/2018

L'État adopte sa propre messagerie instantanée sécurisée

D'ici l'été 2018, l'État disposera de sa propre messagerie instantanée, alternative aux applications WhatsApp et Telegram.

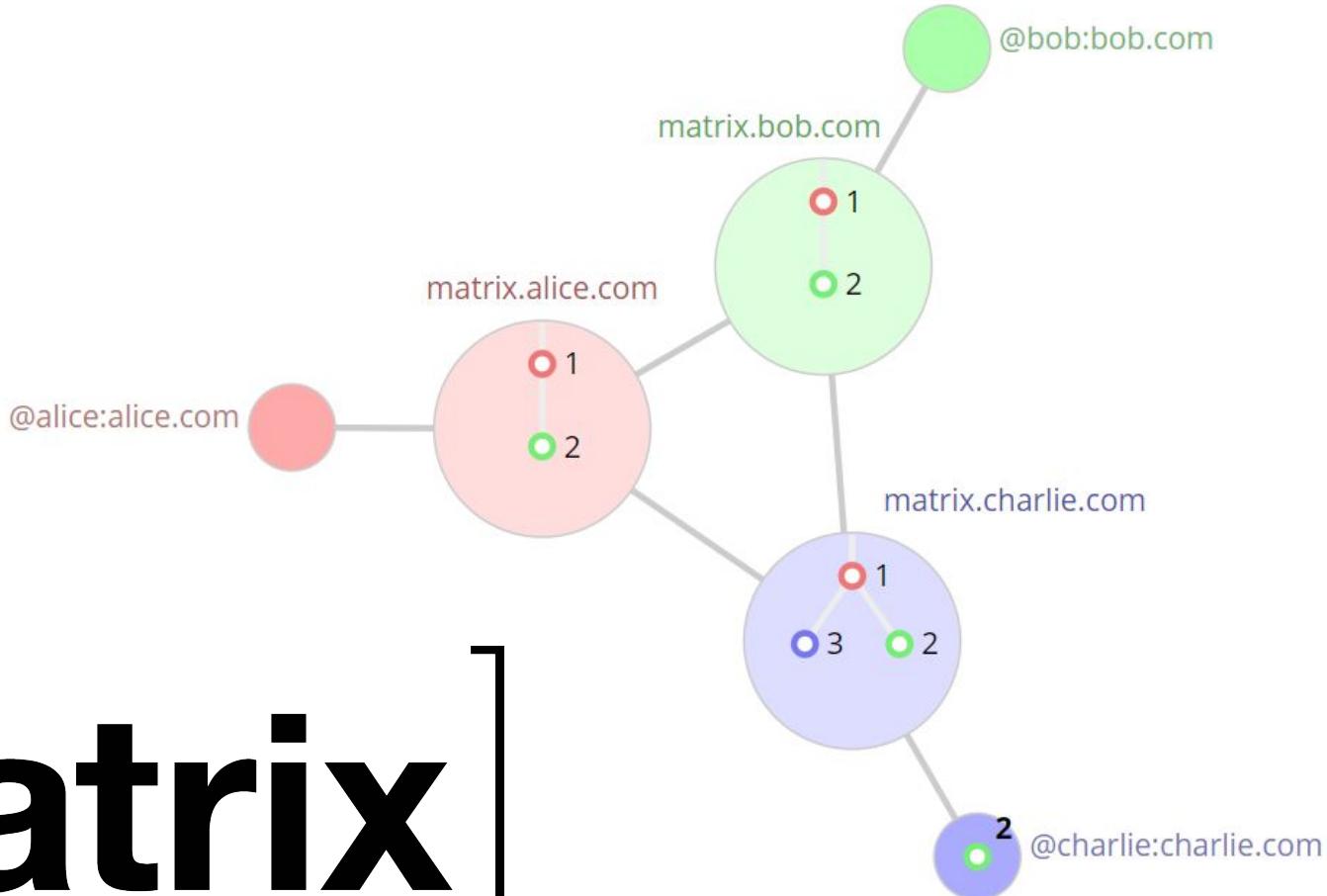
Elle garantira des échanges sécurisés, chiffrés de bout en bout, sans dégradation de l'expérience utilisateur. Elle sera compatible avec n'importe quel terminal mobile ou poste de travail, d'État ou personnel. En effet jusqu'à maintenant l'installation des applications comme WhatsApp ou Telegram n'était pas possible sur les téléphones mobiles professionnels ce qui ne permettait pas une fluidité parfaite de l'information et des partages de documents.

Piloté par la direction interministérielle du numérique et du système d'information et de communication de l'Etat (DINSIC), le projet reçoit les contributions de l'Agence nationale de la sécurité des systèmes d'information (ANSSI), des DSI du ministère des Armées et du ministère de l'Europe et des affaires étrangères.

L'outil développé s'appuie sur un logiciel open source (Riot) qui implémente un standard ouvert (Matrix). Porté par une startup Franco-Britannique (New Vector), et bénéficiant de nombreuses contributions, ce standard d'échanges de messages instantanés a déjà retenu l'attention d'autres Etats tels que les Pays-Bas et le Canada, avec qui la DINSIC collabore étroitement.

[matrix]

<https://matrix.org>





moz://a

HACKS

You
Tube



Download Firefox



Search Mozilla Hacks

Introducing the Dweb



By [Dietrich Ayala](#)

Posted on July 31, 2018 in [Dweb](#), [Featured Article](#), [Mission:Mozilla](#), and [P2P Web](#)

♥ Share This



Introducing the Dweb

The web is the most successful programming platform in history, resulting in the largest open and accessible collection of human knowledge ever created. So yeah, it's pretty great. But there are a set of common problems that the web is *not* able to address.

<https://hacks.mozilla.org/2018/07/introducing-the-d-web/>

Démo

Rotonde,
twitter peer to peer

<https://louis.center/p2p-social-networking/>

Démo

ROTI en peer to peer

<https://acailly.github.io/roti/>

A close-up, shallow depth-of-field photograph of a spider's web against a dark background. The web is composed of fine, light-colored threads that radiate from a central point, creating a complex geometric pattern of triangles and lines. The background is a solid, dark teal color, which provides a strong contrast to the web.

Merci