

# RING AS A FREE UNIVERSAL DISTRIBUTED COMMUNICATION PLATFORM

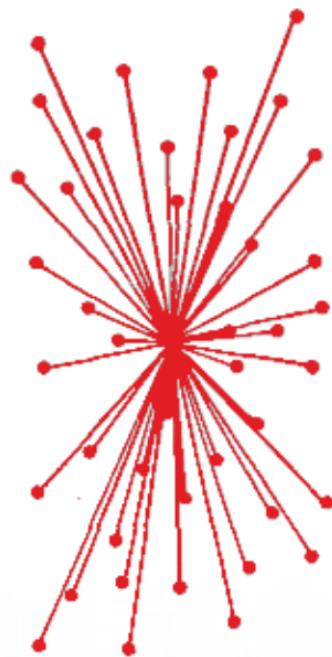
## THE STATE OF THE PROJECT IN 2018

Sébastien Blin [sebastien.blin@savoirfairelinux.com](mailto:sebastien.blin@savoirfairelinux.com)  
Adrien Béraud [adrien.beraud@savoirfairelinux.com](mailto:adrien.beraud@savoirfairelinux.com)

Ring is a free universal  
distributed communication  
platform which respect  
privacy



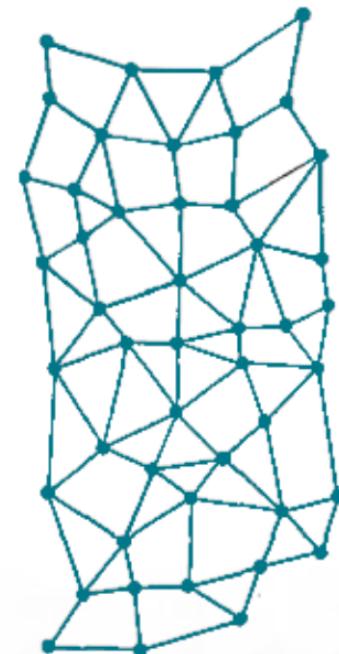
# DISTRIBUTED?



Centralized

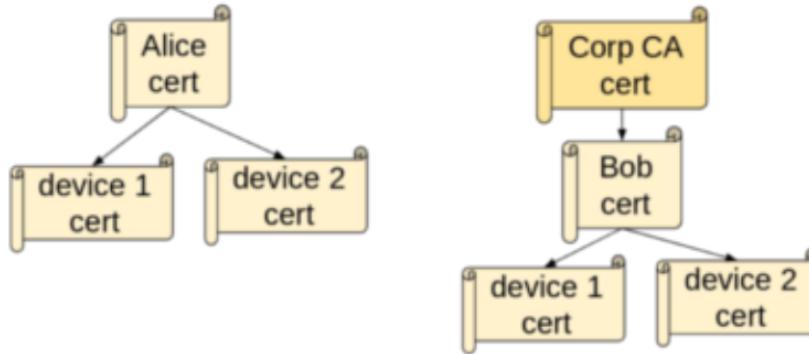


Decentralized



Distributed

# GENERATE A RING ACCOUNT



- Account = RSA key pair.
- RingID = fingerprint of the public key.

*ring:346297f4f3629ae554b92442cc2fde46059f5ac0*

# NAME REGISTRATION: ETHEREUM CONTRACT

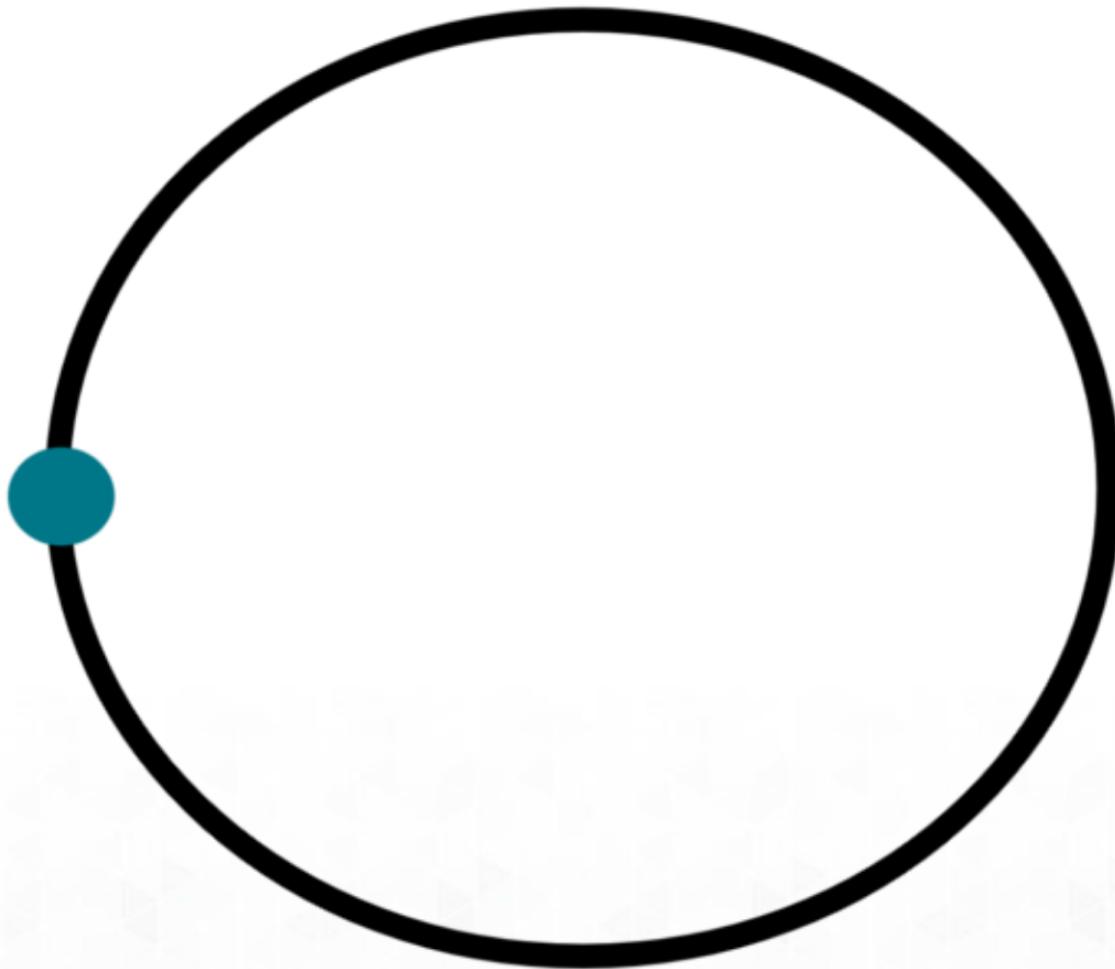


- Public distributed registrar
- Name <-> RingID mappings
- REST API
- Optional

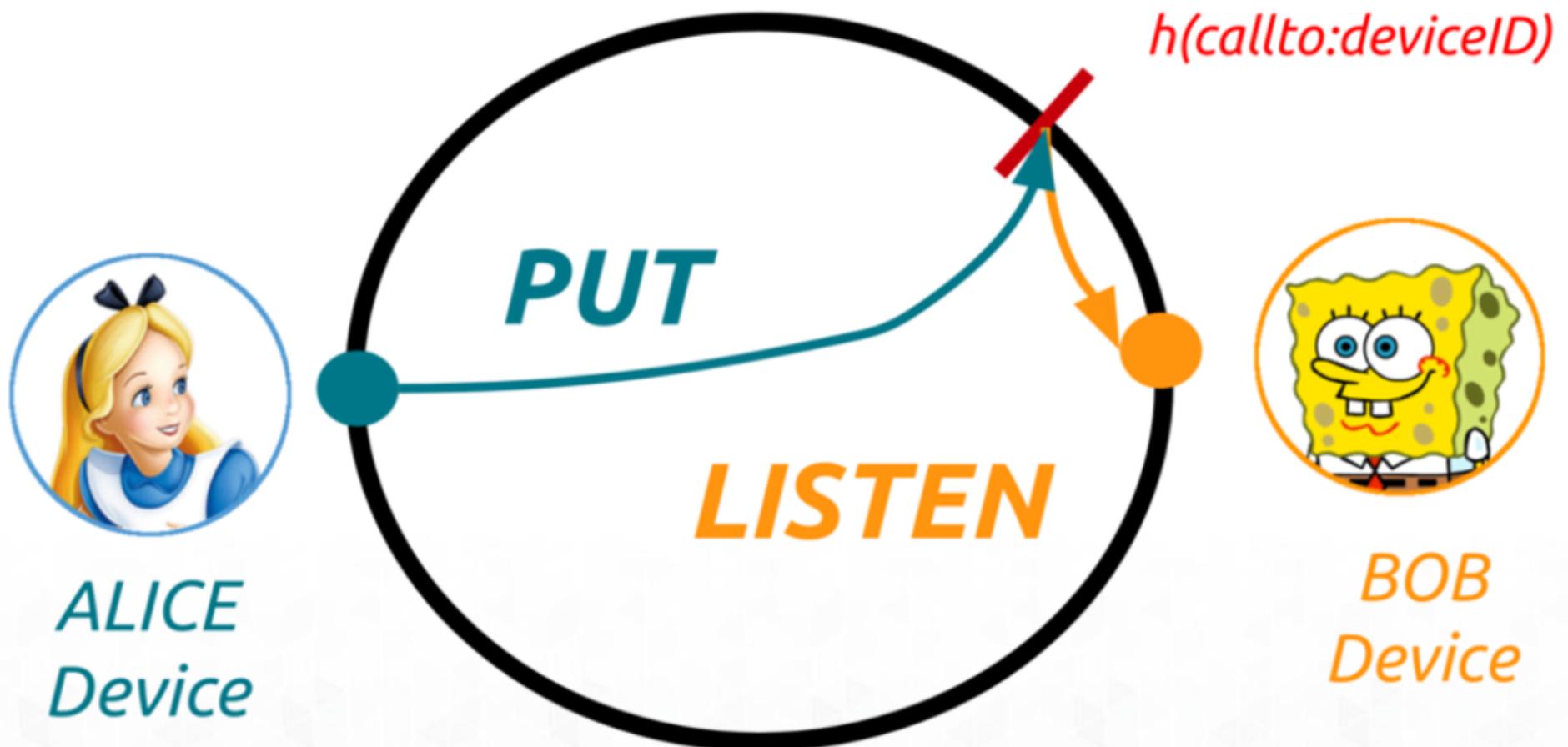
# LET'S COMMUNICATE



*ALICE*  
*Device*



# LET'S COMMUNICATE (2)



# LET'S COMMUNICATE (3)

## ICE Negotiation (RFC 5245)



*ALICE*  
*Device*



*BOB*  
*Device*

# UNIVERSAL



# IN VARIETATE CONCORDIA - NEW PLATFORMS

- iOS
- Android TV
- FDroid

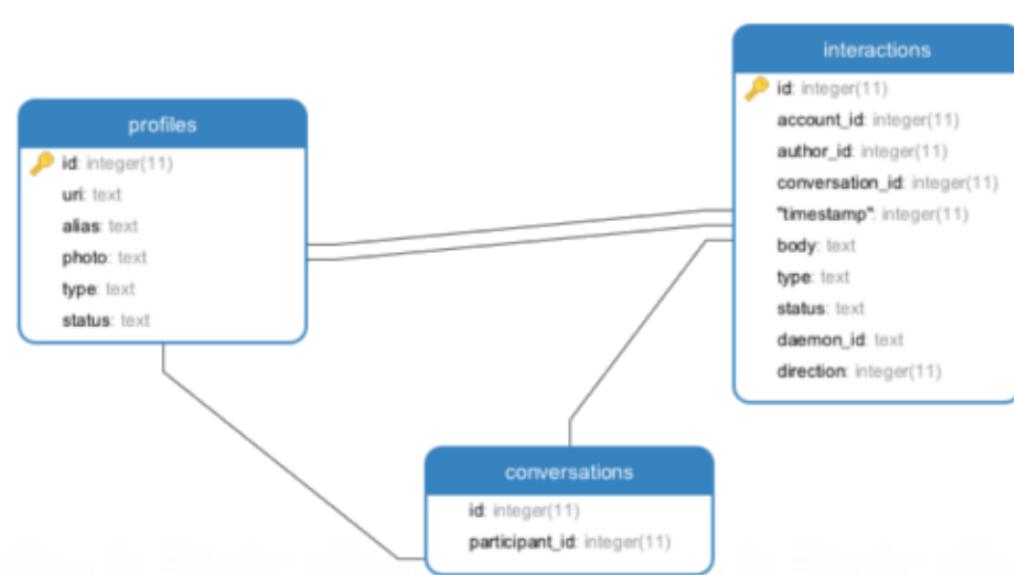
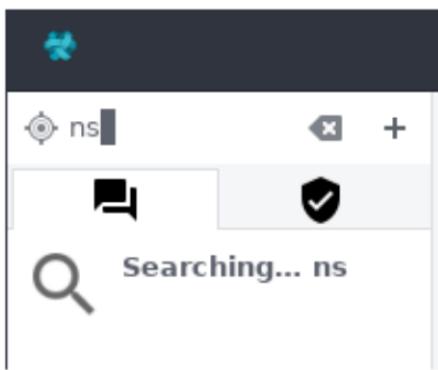


# IN VARIETATE CONCORDIA - NEW FEATURES

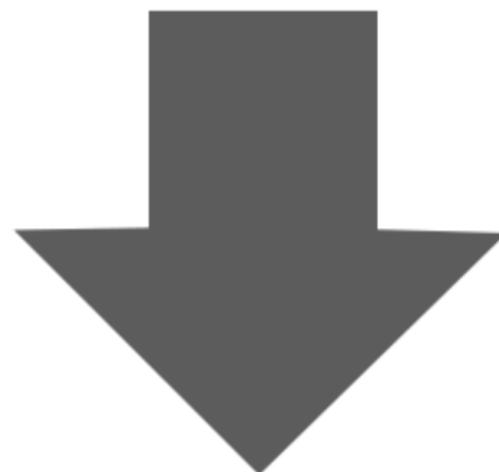
- File transfer
- Push notifications
- DHT Proxy
- Improved contact management

# OTHER FEATURES

- Searching item
- Common database for each platforms
- Add the ability to change passwords
- vdpau acceleration support, etc.



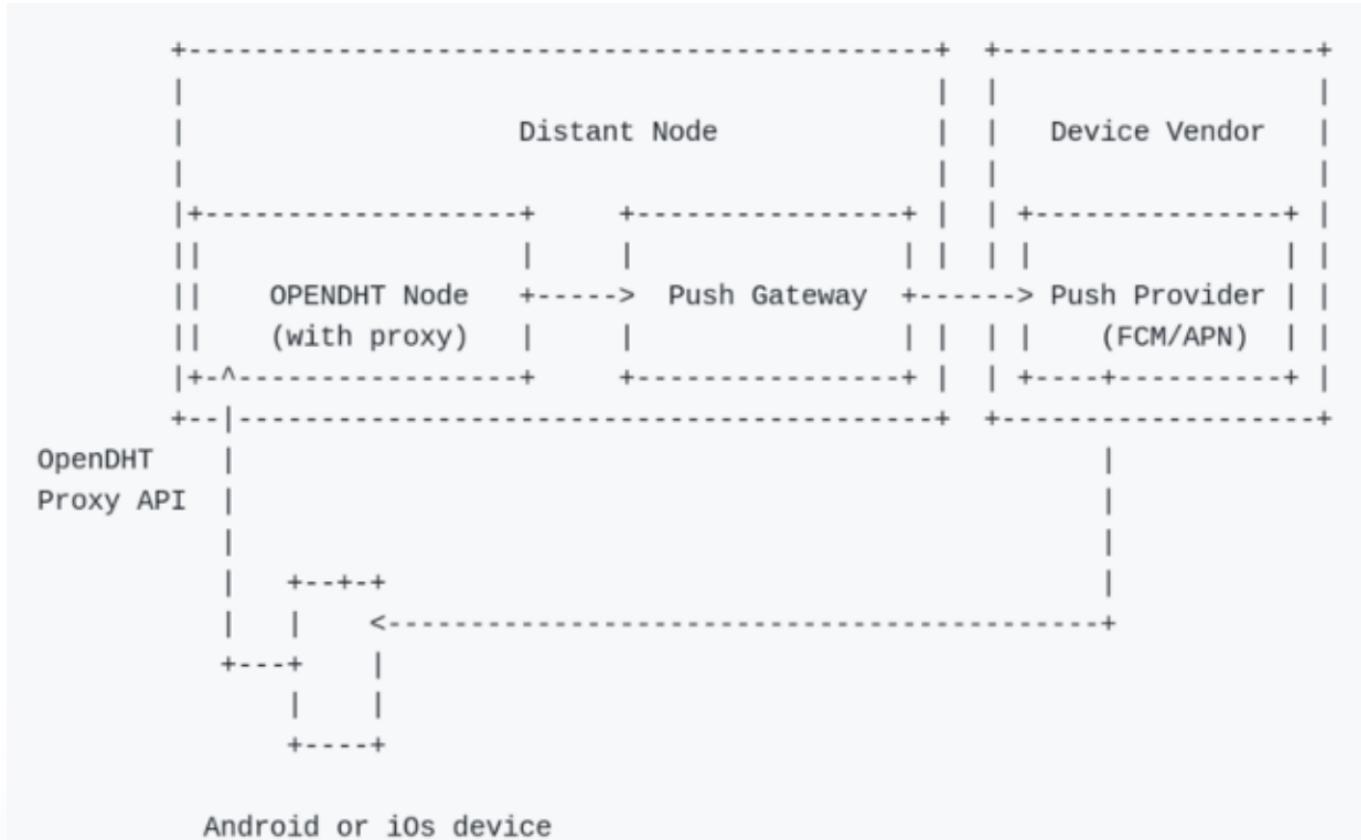
# FILE TRANSFER



# OPENDHT PROXY

- Use a trusted node as a proxy to LISTEN the DHT
- Usable via a REST API (see OpenDHT wiki)
- Avoid synchronization on the device
- Messages still decrypted by the device, not by the proxy

# PUSH NOTIFICATIONS



See [https://github.com/savoirfairelinux/opendht  
/wiki/Push-notifications-support](https://github.com/savoirfairelinux/opendht/wiki/Push-notifications-support)

# 2018 IN SHORT (1)

- Auto video quality: Optimizing the auto video quality algorithm (RTCP/RTSP feedback)
- A p2p file transfer implementation
- Improve the Telepathy Client
- Connect Ring to Matrix as well as possible
- Ring as a WebRTC client

# 2018 IN SHORT (2)

- Packaging, translation, build scripts, support, testing, design, security verification.
- ML, IRC, tuleap
- GSoC

# THANK YOU! QUESTIONS?



Ring  
A GNU project

Join the Ring!

<https://ring.cx>

<https://tuleap.ring.cx/plugins/mediawiki/wiki/ring>