



Le-Space

SPIN-OFF B · CONCEPT

WebRTC Public Data Map

The map of networks that really allow peer-to-peer

Every connection is a measurement. Millions of measurements are a map.

[Demo](#)[Source](#)[npm](#)

The problem

Peer-to-peer in the browser works — or it does not. Nobody knows beforehand, and afterwards nobody knows why.

- **Networks block differently**

Hotel and conference Wi-Fi blocks UDP, corporate firewalls only allow 443, mobile networks sit behind carrier-grade NAT.

- **Browsers are not equal**

Chromium, Firefox and WebKit differ in WebRTC details; on iOS whatever Safari allows is the whole story.

- **IPv6 saves the day — sometimes**

Without a TURN server, peers behind restrictive NATs fail over IPv4, while the same connection over IPv6 is reliable.

- **Nobody measures this at scale**

There are speed tests for bandwidth. There is no map for "does this network allow direct connections".

The insight

When two devices connect out-of-band via QR code — no relay, no signaling server — the connection attempt measures exactly what the network is capable of.

- **The instrument already exists**

`libp2p-webrtc-qr` exchanges signed SDP payloads via QR code or link. The demo already reports which IP families both sides have.

- **One attempt, one data point**

Success or failure, candidate types (host/srflx/relay), IPv4 vs IPv6, setup time, browser, network type, provider (ASN), coarse location.

- **The measurement costs nothing extra**

It falls out of something the user wants to do anyway: connect two devices. No separate test, no extra app.

How it works

Four steps, all on our own stack — from the measurement in the browser to the public map.

1 · Measure

- During the QR handshake, opt-in
- Signed locally with the user's WebAuthn DID
- No SSIDs, no MAC addresses, no GPS point

2 · Collect

- Measurements land in an OrbitDB
- The relay pins and archives (spin-off A)
- The user keeps a copy of their own data

3 · Aggregate

- Summary per network, cell and provider
- Traffic light: green / amber / red with confidence
- Only above enough independent measurements

4 · Trade

- Map public and free
- Raw data sellable via UCAN delegation
- Revenue share to the users who measured

Who pays for it

The map is the shop window. What sells is accuracy, history and scope.

Developers & platforms

- Video, gaming and P2P providers
- Want to know where TURN is needed — and where not
- API/SDK subscription, queried by provider and region

Network operators

- Hotels, municipalities, campuses, coworking, ISPs
- A report on their own network and the neighbourhood
- Paid re-verification after the fix, with a "P2P-ready" seal

Research & regulation

- Net neutrality is unverifiable without measurements
- Universities, NGOs, regulators
- Dataset licence, open extracts for the public

Being listed on the map is always free and is never removed for money — the only thing paid for is a fresh measurement. Anything else would be extortionate and legally indefensible.

Why us

The dataset is a by-product of technology we build and operate anyway.

- **We own the instrument**

`@le-space/libp2p-webrtc-qv` is published, in beta and running as a demo — including signed payloads and a copy/paste fallback.

- **The infrastructure is in place**

Relay, pinning and archive from spin-off A; identity and delegations from the existing passkey/UCAN stack.

- **Credibility on privacy**

A data market only works if users trust the collector. We have spent years building systems that deliberately know little.

Status & next steps

The client exists, the map does not. The next steps are small and individually verifiable.

- **Client in beta** TODAY
QR and link connections between browsers, signed SDPs, file transfer via Helia, live demo online.
- **Measurement schema & opt-in** IN PROGRESS
Define which fields are collected, and a consent dialog you can understand in one sentence.
- **First map** IN PROGRESS
Aggregation and a public map from the measurements of our own tests and conferences.
- **Marketplace pilot** PLANNED
One paying first customer, revenue share for users, anti-manipulation against forged measurements.

Open questions

Deliberately on their own slide: these four points decide whether the model holds.

- **Privacy**

How coarse must the location be so "this network" never becomes "this flat"? GDPR assessment before the first measurement.

- **Legal side of rating**

Public network ratings are lawful when they are evidenced. The fee must never buy removal of an entry, only a fresh measurement.

- **Manipulation**

What stops a provider from measuring itself green? Signed measurements, reputation, outlier detection.

- **Critical mass**

The dataset only sells above a certain density. Where do the first hundred thousand measurements come from?

WEBRTC PUBLIC DATA MAP

Let's talk

Wanted: partners with networks to measure — conferences, campuses, municipalities — and first customers who today have to guess whether a connection will succeed.

Le Space UG (haftungsbeschränkt) · Nico Krause

contact@le-space.de · local-first.le-space.de

+49 / 87 21 / 5 06 49 96

Demo

Source

npm