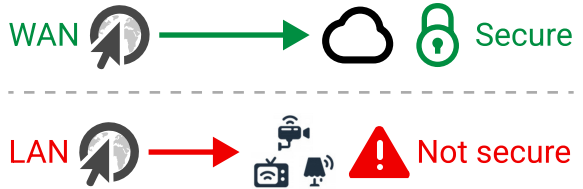


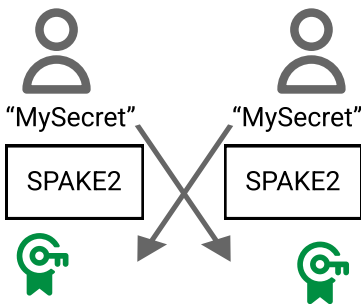
WICG / Local Peer-to-Peer API

The local network is not a first-class citizen of the web. It's easier for a browser to trust a faraway server than your NAS, TV or thermostat sitting right next to you.



This is frankly a sad state of affairs. It leads many projects to rely on a cloud service to proxy connections. Yet, it may be solved!

Open Screen Protocol



The Open Screen Protocol provides an open standard that lets agents **discover** each other using mDNS. After discovery, the agents **authenticate** using a PAKE (Password-authenticated key agreement) algorithm to establish **mutual TLS certificates**.

This allows user agents to establish a secure channel for communication over the local network!

Local building blocks for developers

The Local Peer-to-Peer API is designed to be implementable on the Open Screen Protocol. It provides selective access to the local, secure communication channel in a privacy preserving manner, giving new building blocks for developers:

1. Web APIs to advertise and discover services
2. Web APIs for local data communication (WebTransport & DataChannel)
3. HTTPS on the local network (WIP)
4. Browser UX for discovering local services (WIP)

Potential applications

- Home appliances
- Home robotics & agents
- Internet of Things
- Embedded devices
- Home automation
- Home lab services
- Offline first applications
- ...

WICG / Local Peer-to-Peer API

A Web platform API proposal for local communication between browsers without the aid of a server.

[GitHub >](#)

[Explainer >](#)

[Read the spec >](#)