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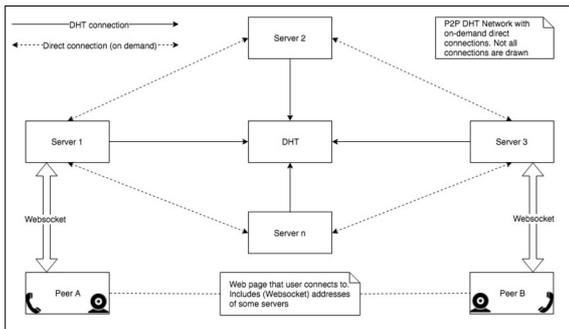


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Subject Area	Internet Technologies and Applications

DWRTC - Distributed WebRTC Signaling

DWRTC extends WebRTC with a decentralized connection setup.



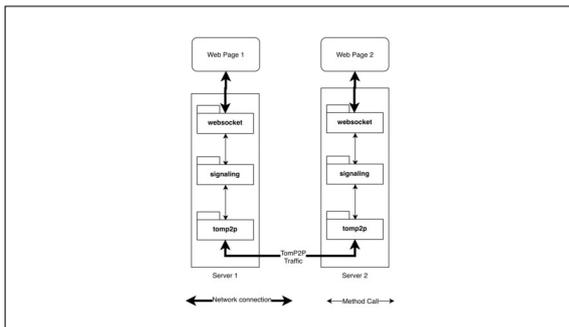
DWRTC Architecture

Introduction: Many of the services available on the internet are centralized. To improve scalability and availability, complex distributed architectures have to be designed and implemented.

Starting right away with a decentralized design on the other hand can scale better and increase availability with a growing network.

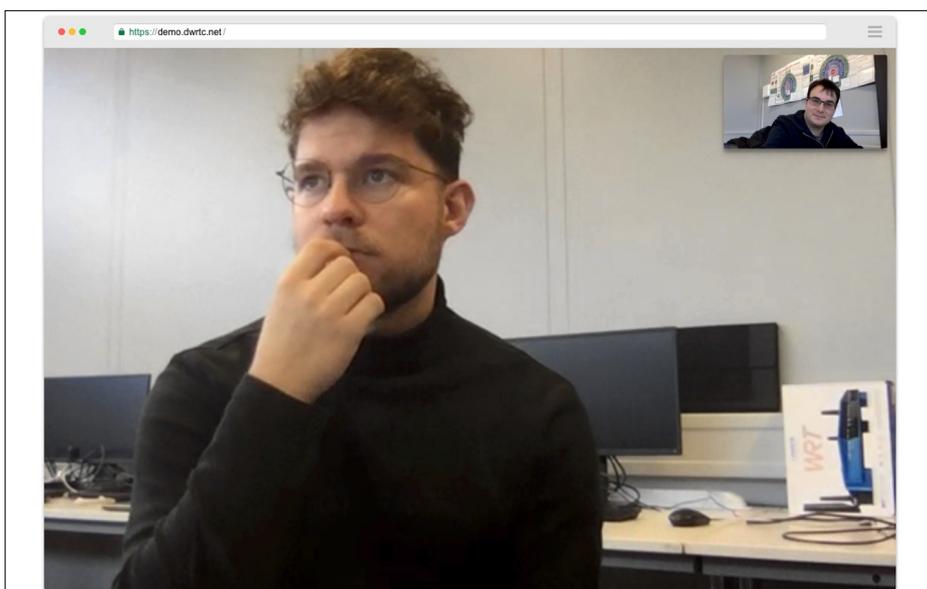
Objective: WebRTC uses a peer-to-peer connection between browsers. The developer has to provide a communication channel for signaling between the two browsers, before the WebRTC connection can be established. In most cases this is achieved using a centralized server.

DWRTC extends WebRTC with a decentralized connection setup. Users connect to different nodes on the Internet. These nodes are connected via a P2P network which stores the routing information. The connection setup messages are routed through this network. The WebRTC connection can then be used to send data, audio and video directly from web browser to web browser.



Flow through the layers

Result: This term project implements this idea. As a proof of concept, it also includes a video call application using DWRTC to establish calls to a partner.



The video call application after establishing a call to a partner