

## lab10 - Research #13

### Research IPFS

21.09.2016 15:04 - didi

<b>Status:</b>	In Progress	
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Description</b>		
<p><a href="#">IPFS</a> stands for <i>interplanetary file system</i>. It's quite similar to Bittorrent, but designed and implemented from scratch and with some advanced features added. The most important added features probably are:</p> <ul style="list-style-type: none"><li>• <a href="#">DHT</a> (instead of <a href="#">Trackers</a>)</li><li>• <a href="#">Merkle Tree</a> (instead of list in <a href="#">torrent file</a>. Combined with the chunking of files, allows automatic deduplication of data on chunk level. Both are proposed as draft extensions to Bittorrent (<a href="#">claims Wikipedia</a>). The auto-scaling is quite similar to Bittorrent automatically seeding a file being downloaded. To pin a file is the same as keeping to seed a file after download.</li></ul> <p>The main point to do it from scratch instead of modernizing Bittorrent was probably to avoid legacy and (backward) compatibility issues.</p> <p>IPFS was designed with an additional incentive layer in mind (named <i>Filecoin</i>), but that's not yet ready. Also see <a href="#">#23</a>.</p>		
<b>Related issues:</b>		
Related to lab10 - Research #23: Reseach Ethereum's SWARM and compare with IPFS		<b>In Progress</b>

### History

#### #1 - 21.09.2016 15:06 - didi

Set up on [@ipfs.d10r.net@](#).

Installed according to "this":<https://ipfs.io/docs/install/> and "this":<https://ipfs.io/docs/getting-started/> instructions.

Configured as autostarted systemd service like described "here":<https://github.com/ipfs/examples/blob/master/examples/init/README.md#systemd>.

Port 4001 forwarded on h1.d10r.net.

Using autossh (configured in [@.ssh/config@](#)) in order to tunnel to the Web Console.

#### #2 - 21.09.2016 23:56 - didi

Also tried <https://github.com/davidar/ipfs-maps> (tiles from "here":<http://osm2vectortiles.org/downloads/>) but can't yet make much sense of it (how to set it up such that it's not an isolated mirror, but rather part of an OSM CDN?)

#### #3 - 22.09.2016 00:04 - didi

[@ipfs stats bw@](#) for bandwidth stats

#### #4 - 08.11.2016 02:00 - didi

Played some more, resulting in <https://github.com/d10r/ipfs-cdn>

#### #5 - 08.11.2016 23:16 - didi

Serverless OpenStreetMap: <https://ipfs.io/ipfs/QmNUFNQXWVzbhePhj6bscW6TPu5azraCpbejbNY9zyfFjo>

IPFS Archives project: <https://github.com/ipfs/archives> (not active in recent months)

pincoop: <https://github.com/VictorBjelholm/pincoop> - attempt to build an interface for easily managing what to pin, stale project

**#6 - 22.12.2016 20:47 - didi**

- *Tracker changed from Support to Research*
- *Project changed from Lab to lab10*
- *Description updated*
- *Status changed from New to In Progress*

**#7 - 22.12.2016 20:47 - didi**

- *Related to Research #23: Reseach Ethereum's SWARM and compare with IPFS added*

**#8 - 30.12.2016 19:59 - didi**

- *Description updated*