



IPFS & Guix

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1 IPFS

Enhances accessibility to knowledge...



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Enhances accessibility to knowledge...

...But stays blind to generated data.



2 GNU Guix in short

Homepage: <https://guix.gnu.org/>

A functional package manager focusing on (among others):

- Reproducibility
 - <https://reproducible-builds.org/>
- Bootstrappability
 - GNU Mes:
<https://www.gnu.org/software/mes/>
 - Stage0: <https://github.com/oriansj/stage0>



2.1 Guix package substitutes

- A few build farms with limited throughput.
- Content delivery networks help (CDN).

Can we do better?



3 IPFS & Guix: BFFs of the 21st century

- What IPFS can do for Guix:
 - Distribute Guix substitutes.
 - Unify references to source data.
- What Guix can provide for IPFS:
 - Maximal transparency in software builds.

(Or any generated data?)

4 Dreams of a (not so distant) future



4.1 The dream: All Guix stores become substitute servers

P2P FTW!



4.2 Deeper dream: All data lives in IPFS

No local filesystem, no Guix store.

Installing an application amounts to *pinning* it.



4.3 Abstract dream: All computations are equal

No distinction between "software builds" and everything else.



5 Next step?

- IPFS wants YAPM (Yet Another Package Manager).
- IPFS wants WebOS.

