

Hôpitaux Universitaires Distributed Peer to Peer Medical Imaging

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Why?!?

Permanence and robustness

Distributed networks tolerate the loss of individual nodes from both technical failures and malicious attacks.



Give Patients Direct Control Over Their Images

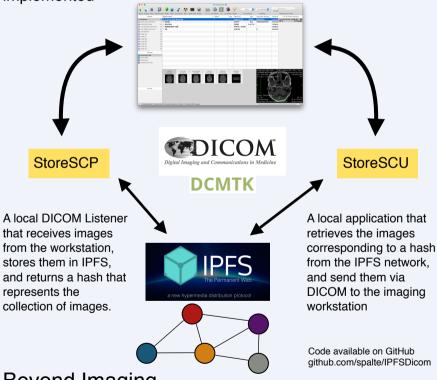
By distributing hashes that correspond to their images, patients can download their own scans, and easily share them with health care providers.



The Implementation

DICOM Interface to IPFS

Imaging workstations use the DICOM protocol to transfer images. In order to keep using the same software, a communications layer between DICOM and IPFS was implemented



Beyond Imaging

Medical records, being a collection of immutable data are naturally represented in distributed networks. Distributed networks such as IPFS would increase reliability, and give ownership of medical data back to patients.

Optimize Network Bandwidth Within Hospitals

Access patterns to medical images within a hospital are not random. The same images are viewed over and over while a patient is hospitalized. Peer to Peer sharing of images between workstations on the wards greatly reduced network congestion.

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