Peer Discovery for HELIOS Platform

Finding peers in a p2p network in a privacy preserving way using DHT.

We consider the problem of how to tell your friends in a p2p network how to contact you without revealing your IP address to all others?

We use distributed hash tables (DHT) and encryption.

In our solution

• The encrypted IP address is written in the DHT in a location only friends can find
• The IP address can be decrypted using a key that also is written in the DHT
• The location of the key is only known to the friends
• The key is encrypted using another key that only friends know (or that key can also be found encrypted in the DHT…)