Software Specification „Folder Sync“

## 3-Layer-Architecture

receive

send

with neighbor list

* send messages
* receive messages
* file transfer
* receive ping and react with pong for peer exploration
* build-up connection
* terminate connection
* refresh neighbor list (delete neighbors with expired timeouts)
* analyze messages from application and outreach them to the network
* periodically sending file list to neighbors
* sending request for file x from neighbor y
* sending file x to neighbor y

outQueue

outQueue

inQueue

inQueue

Message specification:

incoming Ping := ("Ping", PingID, TTL, Hops, senderUsername, senderIP)

outgoing Ping := ("Ping", PingID, TTL, Hops, ownUsername, ownIP, targetIP)

incomingPong := ("Pong", ID, [(Username, IP), (Username2, IP2), ...])

outgoingPong := ("Pong", ID, [(Username, IP), (Username2, IP2), ...], targetIP)