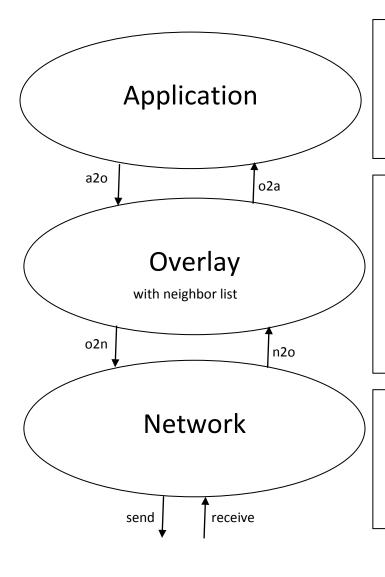
Software Specification "Folder Sync"

3-Layer-Architecture



- periodically sending file list to neighbors
- sending request for file x from neighbor y
- sending file x to neighbor y
- 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
- send messages
- · receive messages
- file transfer

Message specification:

```
incoming Ping (n2o) := ("Ping", PingID, TTL, Hops, senderUsername, senderIP)

outgoing Ping (o2n) := ("Ping", PingID, TTL, Hops, ownUsername, ownIP, targetIP)

incoming Pong (n2o) := ("Pong", ID, [(Username, IP), (Username2, IP2), ...])

outgoing Pong (o2n) := ("Pong", ID, [(Username, IP), (Username2, IP2), ...], targetIP)

incoming RefFL (n2o) := (msgType, fileList, senderUsername, senderIP)

incoming RefFL (o2a) := (msgType, fileList, senderUsername, urgentFlag)

outgoing RefFL (a2o) := (msgType, fileList)

outgoing RefFL (o2n) := (msgType, fileList, ownUsername, targetIP)
```