

heart beat leader → multicast
member list

member list
array of ips

~~ping member → multicast
null~~

~~pong sender ip is the leader leader → member
(possible: member list)~~

leader sender ip is the leader (error! TBR) also outmost leader → multicast
null

message request member → leader unicast
string

message leader → multicast
E id: Integer
msg: String
sender: ip }

election member → multicast
E reason: [heart beat missing | two heartbeats] }

highest member → multicast
null

ack member → leader unicast
(optional: type: type of acknowledged message)

Optional

- request old message

put current message id into heartbeat

create message types for requesting / resending old messages

election

heartbeat timeout? + random time

↳ election

highest $\times n$
leader

election



end

message request

message

entry

heartbeat?

↓ timeout

election
+ highest

heartbeat

highest $\times n$?

leader

heartbeat

heartbeat

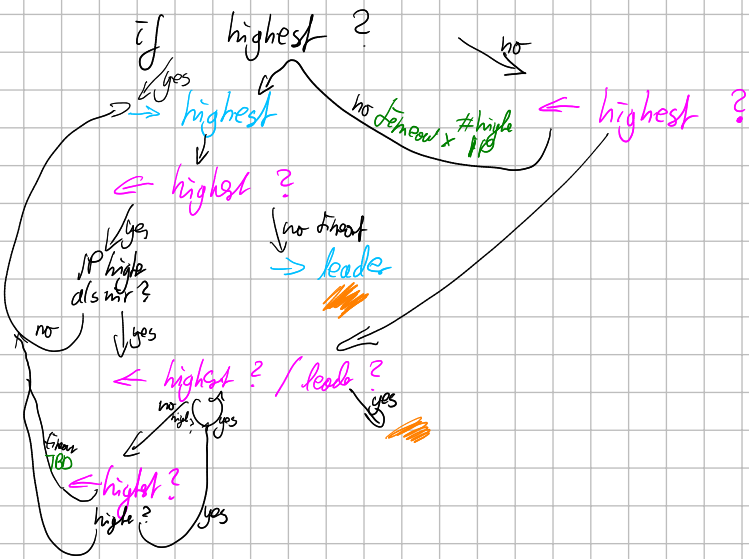
ack

Election

heartbeat timeout (Trigger)

clear leader/highest guess when reasonable

→ decision



Threads

receive multicast

listen on multicast

per packet received:

add to queue

queues
messages
leader
highest
election → trigger

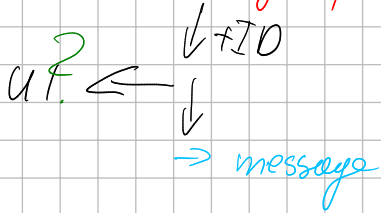
heartbeat → ack direkt

receive unicast leader only

message request

ack

notieren dass sende noch mitglied ist



U /

Election