

# 1 General responsibilities of a node

Common responsibilities of a node.

- Some data types

— *data WhereIsReply = WhereIsReply String (Maybe ProcessId)*

- Initialize Node

— *getall peers other than me*

— *register my pid as a list of available services.*

— *listen to all peers to copy the global state into the node.*

- Handle WhereIs Reply

— *handle WhereIsReply*

— *Throw exception when ProcessId is Nothing.*

`handleWhereIsReply :: Server -> ServiceProfile -> WhereIsReply ->`

- Broadcast remote messages to local connections.

— *Broadcast local message by publishing to a local STM Bounded queue*

— *bMessage :: (WS.Connection, TBQueue LocalMessage) -> (Text -> PMessage)*

- Publish to local queues

— *Send all messages from the remote queue to the local queue.*

— *This function will most likely vary per node.*

- Update remote service queue

`updateRemoteServiceQueue :: Server -> ProcessId -> (PMessage, UTCTime) ->`

- Handle Remote message

— *this is where each node handles most of the work.*