

**task**  $\mathcal{U}.$ SERVEPEERS()

**while** True **do**

**Wait for a connection from**  $P_i^?$

**for**  $S^t \in S$  **do**

**if**  $|T^t| < N$  **then**  $[S^t] \Rightarrow P_i^?$

**task**  $\mathcal{R}.$ UPDATEFULLNESS()

**while** True **do**

$[[\mathcal{T}_j]] \leftarrow \mathcal{S}_j$

**task**  $\mathcal{S}_j.$ SERVEPEERS()

**while** True **do**

**Wait for connection from**  $\mathcal{P}_i$

**if**  $\mathcal{P}_i$  is joining **then**

**for**  $\mathcal{P}_k \in \mathcal{T}_j$  **do**  $[\mathcal{P}_k] \Rightarrow \mathcal{P}_i$

$\mathcal{T}_j = \mathcal{T}_j \cup \mathcal{P}_i$

**else**

$\mathcal{T}_j = \mathcal{T}_j \setminus \mathcal{P}_i$

$[[\mathcal{T}_j]] \Rightarrow \mathcal{R}$

**task**  $\mathcal{P}_k.(\mathcal{P}_i)$

▷ Reply a [hello] message

$[\text{hello}] \rightarrow \mathcal{P}_i$

**task**  $\mathcal{P}_i.$ JOIN( $\mathcal{R}$ )

▷ Incoming peer  $\mathcal{P}_i$  joins a team

$[[\mathcal{S}_j]] \leftarrow \mathcal{R}.$ GETSPLITTER( $\mathcal{P}_i$ )

▷ Receive a splitter

**for**  $\mathcal{P}_k \in [[\mathcal{T}_j]] \leftarrow \mathcal{S}_j.$ GETPEERS( $\mathcal{P}_i$ ) **do**

▷ Receive a list of peers

$[\text{hello}] \rightarrow \mathcal{P}_k$

$[\text{hello}] \leftarrow \mathcal{P}_k$  **with timeout**