

```

upon event <Init> do
    forall  $P_i \in \Pi$  do
        delivered[ $P_i$ ] := 0;
        missing[ $P_i$ ] := 0;
    lsn := 0; stored := 0;

procedure gossip (msg) is
    forall  $t \in$  pick-targets (fanout) do
        trigger <flp2pSend |  $t$ , msg>;

upon event <pbBroadcast |  $m$ > do
    lsn := lsn+1; trigger <unBroadcast | [Data, self,  $m$ , lsn]>;

upon event <unDeliver |  $P_i$ , [DATA,  $S_m$ ,  $m$ , SN $m$ ]> do
    if (random() > store-threshold) then
        stored := stored  $\cup$  { [DATA,  $S_m$ ,  $m$ , SN $m$ ] };
        trigger <pbDeliver |  $S_m$ ,  $m$ >; //deliver immediately
    if (SN $m$  = delivered[ $S_m$ ] + 1) then
        delivered[ $S_m$ ] := delivered[ $S_m$ ] + 1;
    else if (SN $m$  > delivered[ $S_m$ ] + 1) then
        forall seqnb  $\in$  [SN $m$  - 1, delivered[ $S_m$ ] + 1] do //usually you use [n, n + |m|] notation
            gossip ([REQUEST, self,  $S_m$ , seqnb, maxrounds - 1]);
            missing[ $P_i$ ] := missing[ $P_i$ ]  $\cup$  seqnb;
            startTimer (TimeDelay,  $P_i$ , SN $m$ );

upon event <flp2pDeliver |  $P_j$ , [REQUEST,  $P_i$ ,  $S_m$ , SN $m$ ,  $r$ ] > do
    if ([DATA,  $S_m$ ,  $m$ , SN $m$ ]  $\in$  stored) then
        trigger <flp2pSend |  $P_i$ , [DATA,  $S_m$ ,  $m$ , SN $m$ ] >;
    else if ( $r > 0$ ) then
        gossip ([REQUEST,  $P_i$ ,  $S_m$ , SN $m$ ,  $r - 1$ ]);

upon event <flp2pDeliver |  $P_j$ , [DATA,  $S_m$ ,  $m$ , SN $m$ ]>  $\cup$ 
    if (SN $m$   $\in$  missing[ $S_m$ ]) then
        trigger <pbDeliver |  $S_m$ ,  $m$ >;
        missing[ $S_m$ ] := missing[ $S_m$ ]  $\setminus$  SN $m$ ;

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