
Algorithm 1 FlowStatisticsCollectionScheduling(*Event* e)

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globals:  active_flows //Currently Active Flows
          schedule_table //Associative table of active flows
                               // indexed by poll frequency
          U // Utilization Statistics. Output of this algorithm
if e is Initialization event then
    active_flows  $\leftarrow \phi$ , schedule_table  $\leftarrow \phi$ , U  $\leftarrow \phi$ 
end if
if e is a PacketIn event then
    f  $\leftarrow \langle e.switch, e.port, \mathcal{T}_{min}, 0 \rangle$ 
    schedule_table[ $\mathcal{T}_{min}$ ]  $\leftarrow$  schedule_table[ $\mathcal{T}_{min}$ ]  $\cup f$ 
else if e is timeout  $\tau$  in schedule_table then
    for all flows f  $\in$  schedule_table[ $\tau$ ] do
        send a FlowStatisticsRequest to f.switch
    end for
else if e is a FlowStatisticsReply event for flow f
then
    diff_byte_count  $\leftarrow e.byte\_count - f.byte\_count$ 
    diff_duration  $\leftarrow e.duration - f.duration$ 
    checkpoint  $\leftarrow current\_time\_stamp$ 
    U[f.port][f.switch][checkpoint]  $\leftarrow \langle diff\_byte\_count,$ 
                                                diff_duration  $\rangle$ 
    if diff_byte_count  $< \Delta_1$  then
        f. $\tau \leftarrow \min(f.\tau\alpha, \mathcal{T}_{max})$ 
        Move f to schedule_table[f. $\tau$ ]
    else if diff_byte_count  $> \Delta_2$  then
        f. $\tau \leftarrow \max(f.\tau/\beta, \mathcal{T}_{min})$ 
        Move f to schedule_table[f. $\tau$ ]
    end if
end if

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