
Protocol 6.4. Hop-count flooding for dynamic environments, with sensor value trigger.

Restrictions: Reliable communication; time-varying connected communication graph $G(t) = (V, E(t))$; $s : V \times T \rightarrow \{0, 1\}$

State Trans. Sys.: $(\{\text{IDLE}, \text{DONE}\}, \{(\text{IDLE}, \text{DONE}), (\text{DONE}, \text{IDLE})\})$

Initialization: All nodes in state IDLE

IDLE

When $\hat{s}(\text{now}) = 1$

broadcast (msg, 0)

become DONE

#Check for presence of sensed variable

#Broadcast msg to neighbors

DONE

When $\hat{s}(\text{now}) = 0$

become IDLE

#Check for absence of sensed variable

IDLE, DONE

Receiving (msg, h)

if $h < 10$ **then**

broadcast (msg, $h + 1$)

#Maximum hop count of 10

#Broadcast msg to neighbors
