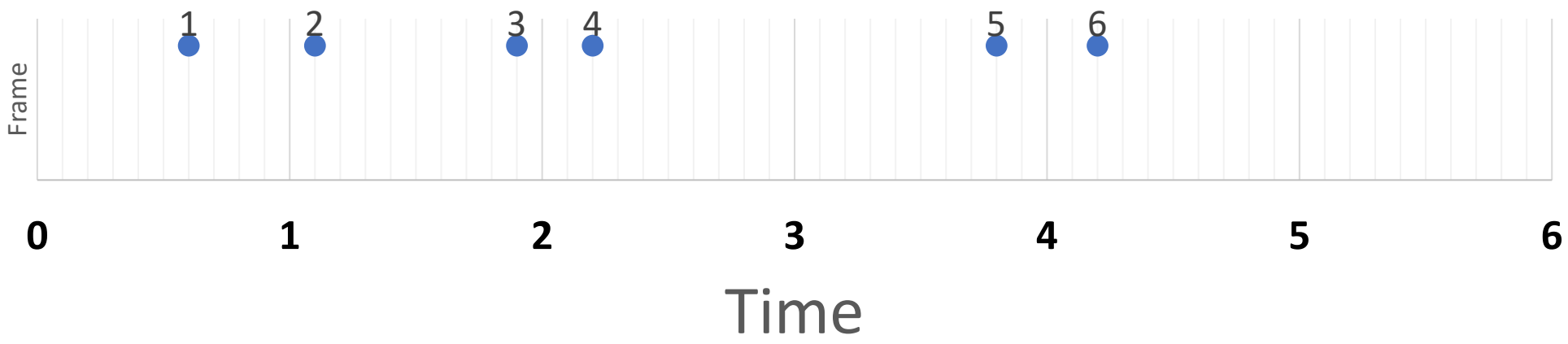
Consider the figure below, which shows the arrival of 6 frames for transmission at different nodes at times *t = <0.6, 1.1, 1.9, 2.2, 3.8, 4.2>* and each transmission requires exactly one time unit.

Suppose all nodes are implementing Carrier Sense Multiple Access (*CSMA*). Suppose that the time from when a message transmission begins until it is beginning to be received at other nodes is *0.4* time units.

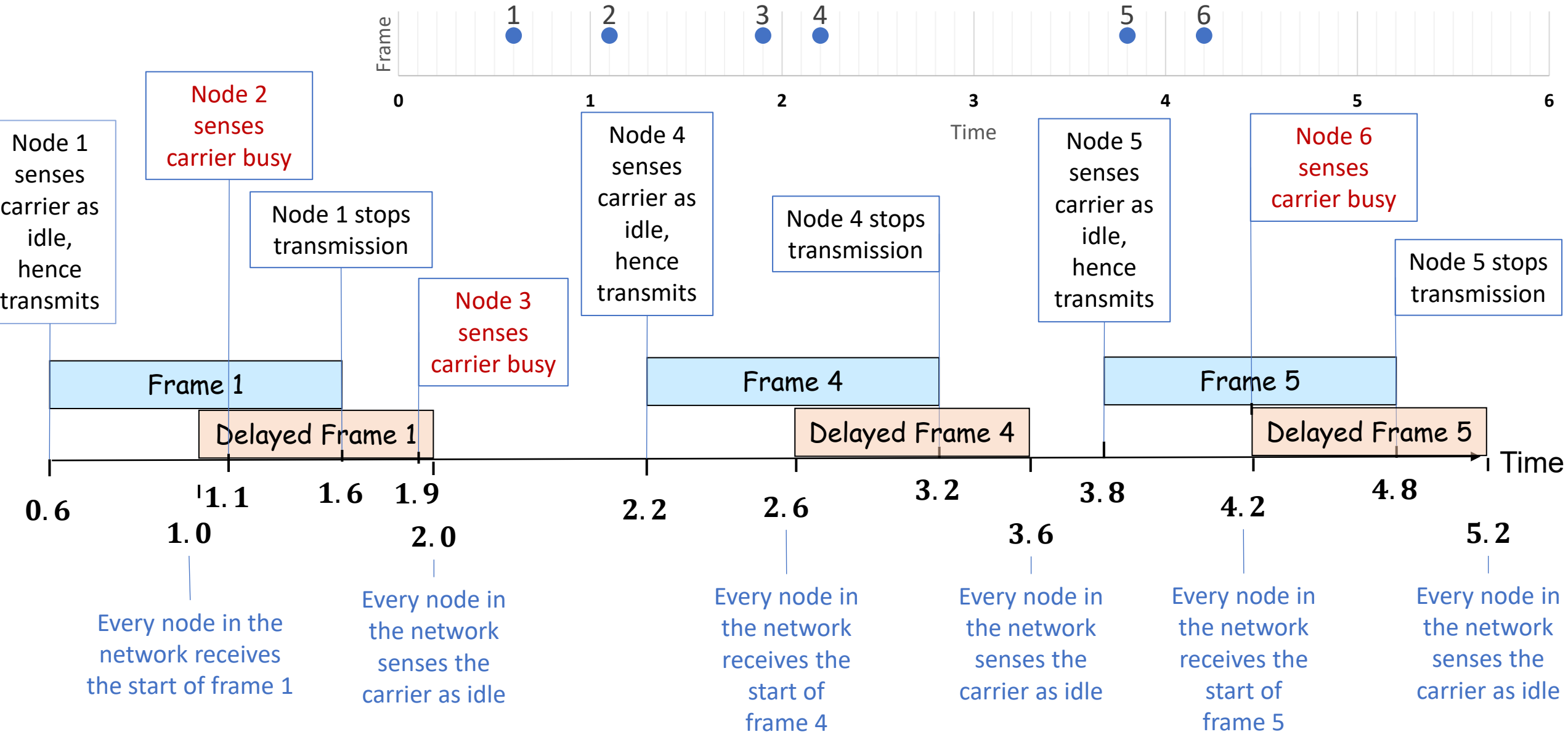
(Thus if a node begins transmitting a message at *t=2.0* and transmits that message until *t=3.0*, then any node performing carrier sensing in the interval *[2.4, 3.4]* will sense the channel busy.)

Assuming no retransmission happen till *t=6.0,* Let us Look at the behavior!



t = <0.6, 1.1, 1.9, 2.2, 3.8, 4.2>

Propagation delay = 0.4

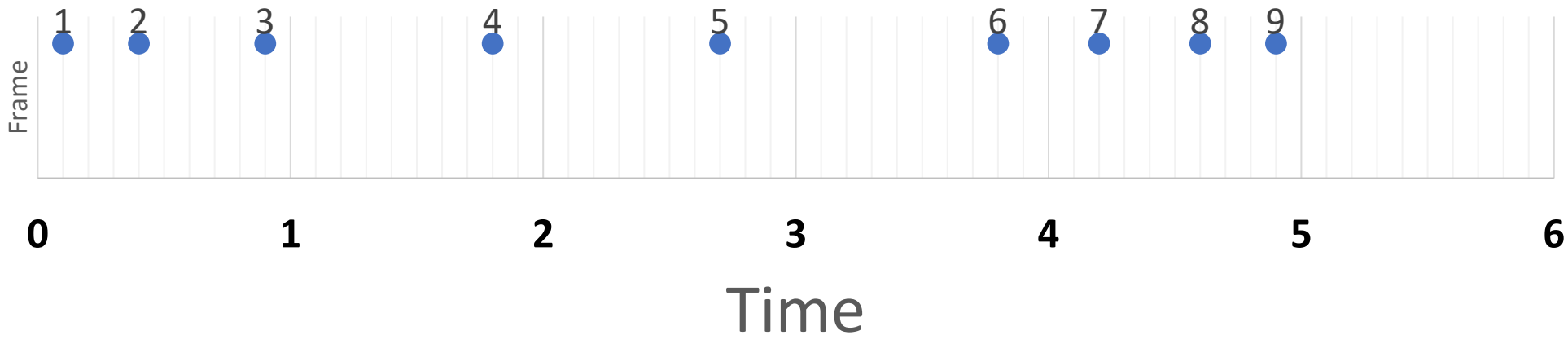


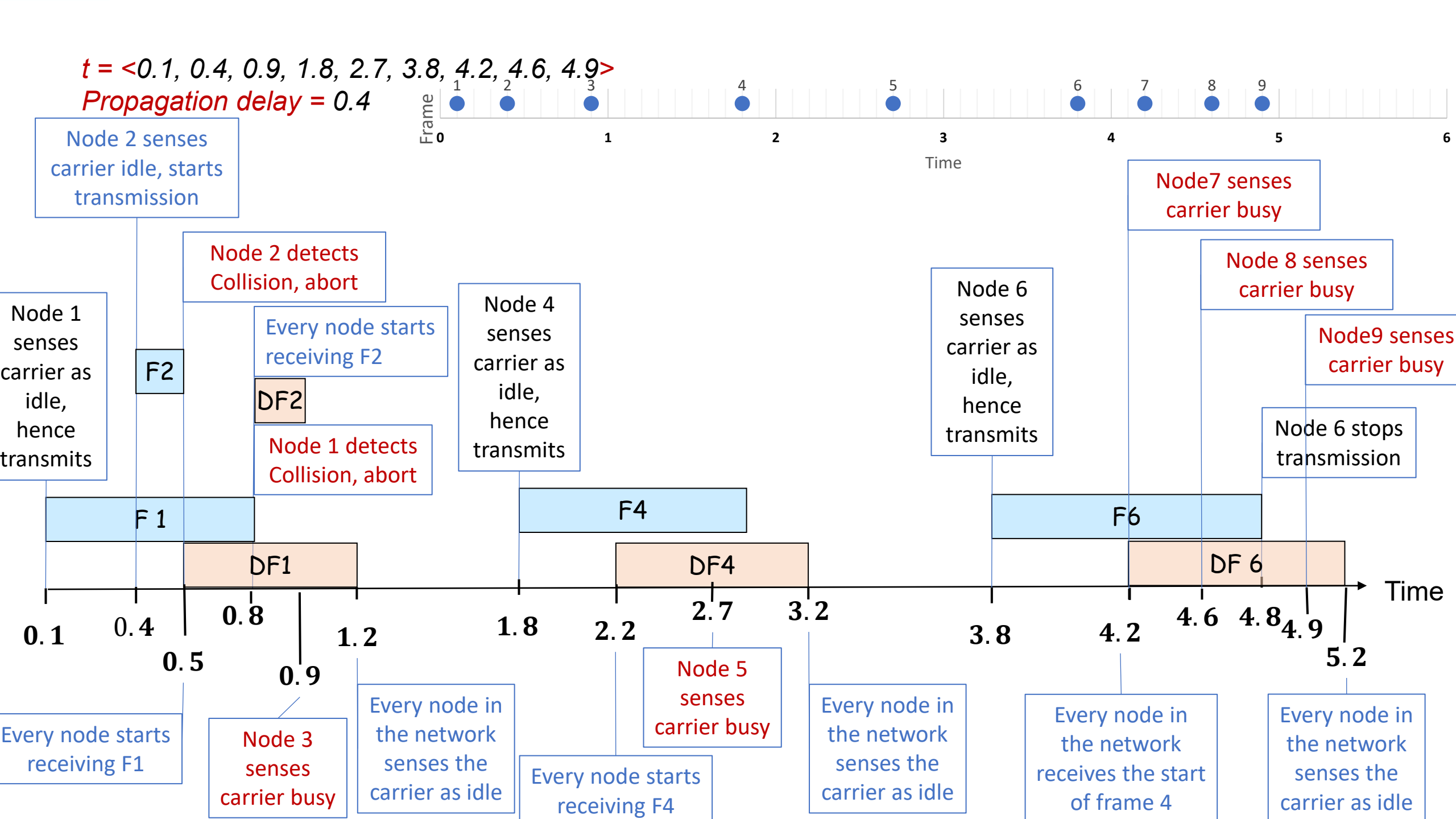
Consider the figure below, which shows the arrival of 6 frames for transmission at different nodes at times *t = <0.1, 0.4, 0.9, 1.8, 2.7, 3.8, 4.2, 4.6, 4.9>* and each transmission requires exactly one time unit.

Suppose all nodes are implementing *CSMA/CD*. Suppose that the time from when a message transmission begins until it is beginning to be received at other nodes is *0.4* time units.

(Thus if a node begins transmitting a message at *t=2.0* and transmits that message until *t=3.0*, then any node performing carrier sensing in the interval *[2.4, 3.4]* will sense the channel busy.)

Assuming no retransmission happen till *t=6.0,* Let us Look at the behavior!




t = <0.1, 0.4, 0.9, 1.8, 2.7, 3.8, 4.2, 4.6, 4.9>
Propagation delay = 0.4
Frame
Time
Node 2 senses carrier idle, starts transmission
Node 2 detects Collision, abort
Every node starts receiving F2
Node 1 detects Collision, abort
Node 1 senses carrier as idle, hence transmits
Node 4 senses carrier as idle, hence transmits
Node 6 senses carrier as idle, hence transmits
Node7 senses carrier busy
Node 8 senses carrier busy
Node9 senses carrier busy
Node 6 stops transmission
F2
DF2
F 1
DF1
F4
DF4
F6
DF 6
Time
0.1
0.4
0.5
0.8
0.9
1.2
1.8
2.2
2.7
3.2
3.8
4.2
4.6
4.8
4.9
5.2
Every node starts receiving F1
Node 3 senses carrier busy
Every node in the network senses the carrier as idle
Every node starts receiving F4
Node 5 senses carrier busy
Every node in the network senses the carrier as idle
Every node in the network receives the start of frame 4
Every node in the network senses the carrier as idle