Flow Control

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1 TCP Tahoe

TCP Tahoe is an early implementation of TCP. It is very simple and robust. TCP Tahoe maxamizes bandwidth usage by trying to keep a full queue. To fill up a queue without losing packets Tahoe has a few simple rules.

1. Setting an initial slow start threshold. This will be used to quickly increase bandwidth.
2. Slow Start. Slow Start is very simple. Whenever an ack is received and the current window size is less than the threshold, increase the window size by the number of packets received.
3. Additive Increase. Whenever an ack is received and the window size is greater than the threshold, the window size is increased by

```
class Node:
    def __init__(self,scheduler):
        self.scheduler = scheduler

    def handle_message(self,t,message):
        print "Received at",t,':',message.body
        if message.times < 3:
            self.scheduler.add(t+1.5, message, self.handle_message)
        message.times += 1
```

2 Section Name

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Setting	Result
1	1.0
2	3.45
3	7.85
4	15.89

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1. Item.
2. Another item.

3 Section Name

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4 Section Name

d_{trans} is the transmission delay. d_{prop} is the propagation delay.

$$\begin{aligned} d &= d_{trans} + d_{prop} \\ &= (1000 * 8)/1000000 + 0.05 \\ &= 0.058 \end{aligned}$$