

# Lab 02- Simulating TCP Tahoe: Understanding Congestion Control Mechanisms

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## 1 Lab Questions

### 1.1 Task 1: Running the TCP Tahoe Simulation

- 1.1.1 What happens to cwnd during slow start?
- 1.1.2 How does TCP Tahoe handle packet loss?
- 1.1.3 What triggers the transition from slow start to congestion avoidance?

### 1.2 Task 2: Analyzing the Simulation Code

- 1.2.1 How is cwnd growth modeled during slow start and congestion avoidance?
- 1.2.2 What role does ssthresh play in TCP Tahoe?

### 1.3 Task 3: Modifying the Simulation

- 1.3.1 How does the packet loss rate affect TCP Tahoe's performance?
- 1.3.2 How does increasing the maximum congestion window size impact the simulation?

### 1.4 Task 4: Exploring Scenarios

- 1.4.1 How does a higher packet loss rate affect cwnd dynamics?
- 1.4.2 What differences do you observe when modifying ssthresh values?

### 1.5 Task 5: Extending the Simulation

- 1.5.1 How does your chosen algorithm differ from TCP Tahoe?
- 1.5.2 Which algorithm performs better under high packet loss?