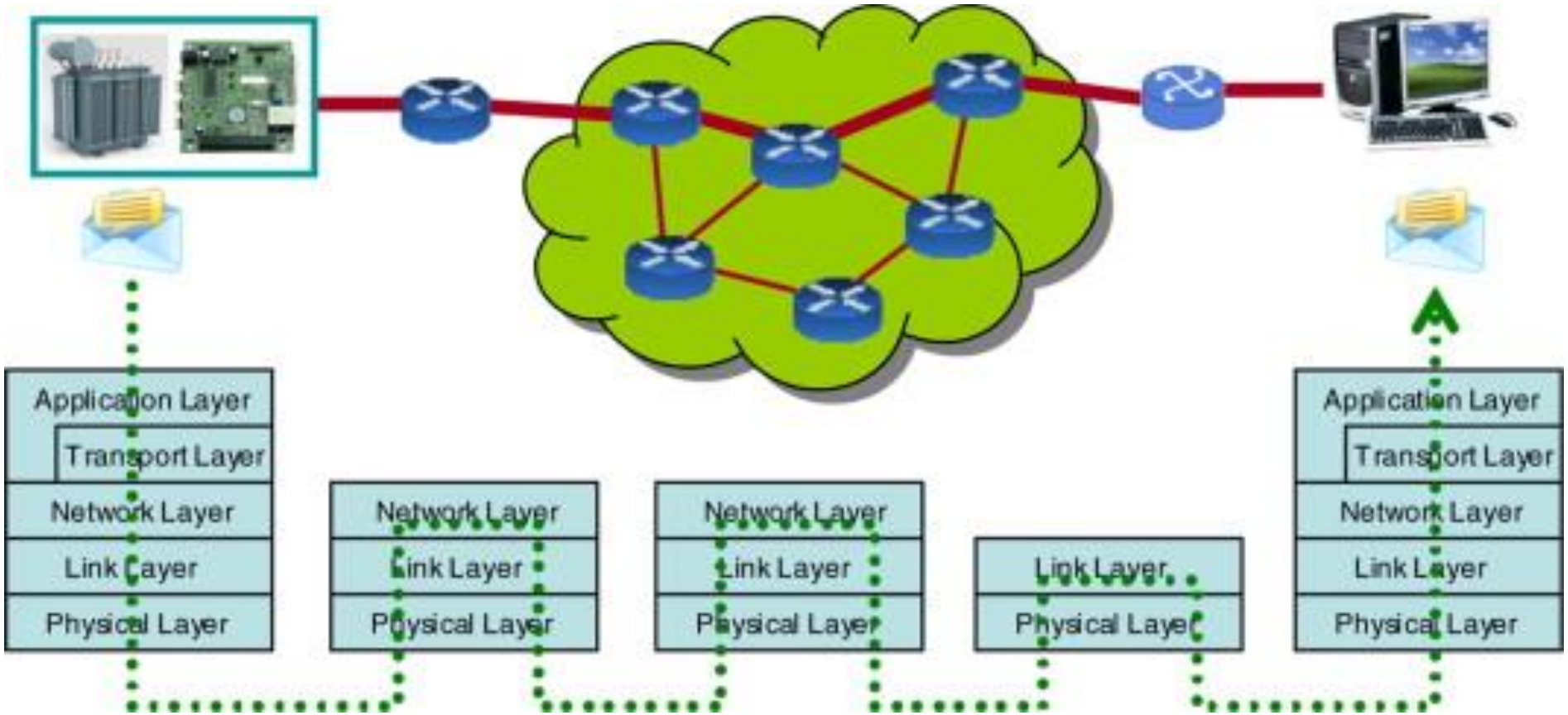
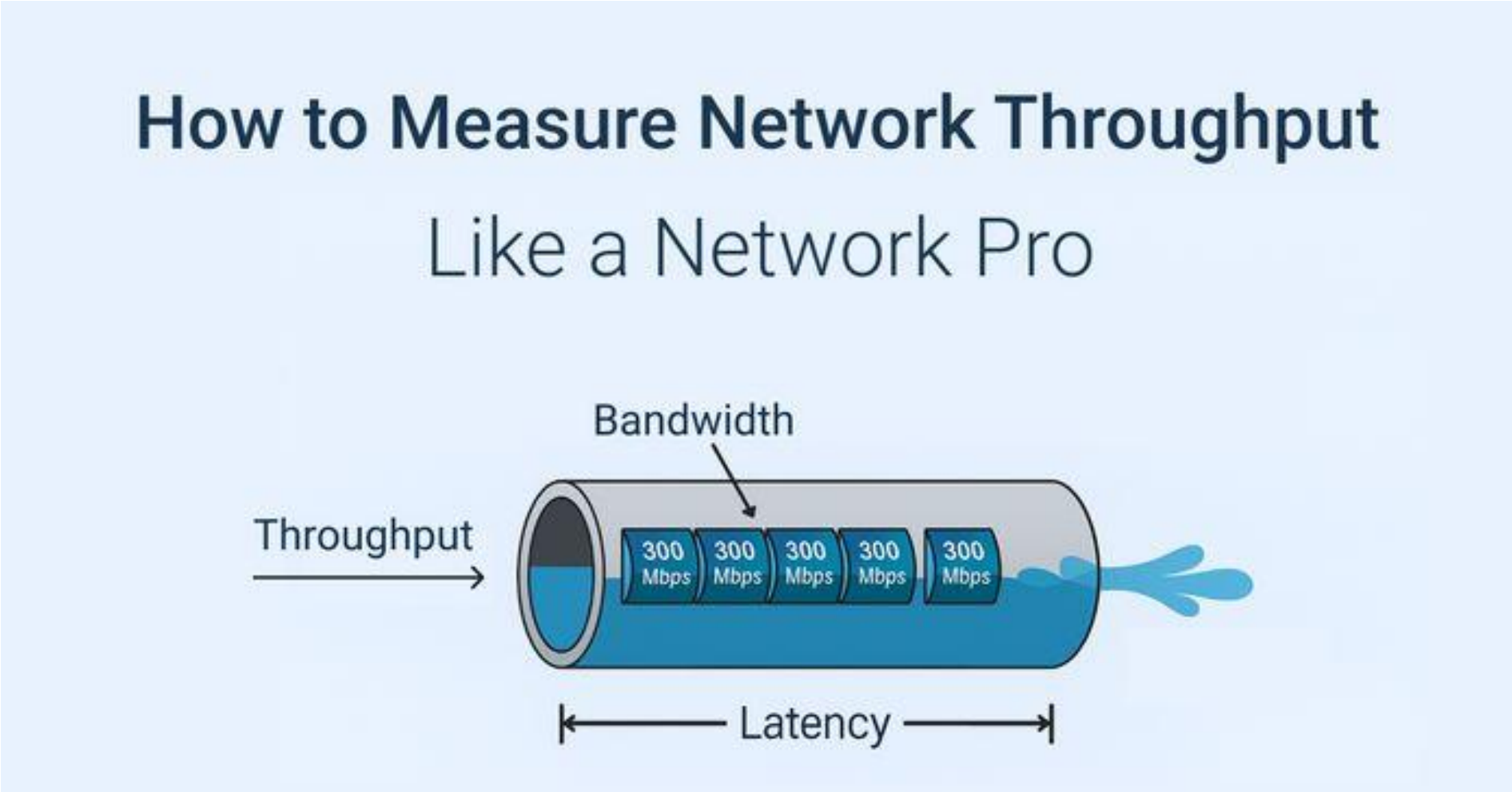
# Throughput
# Latency and RTT

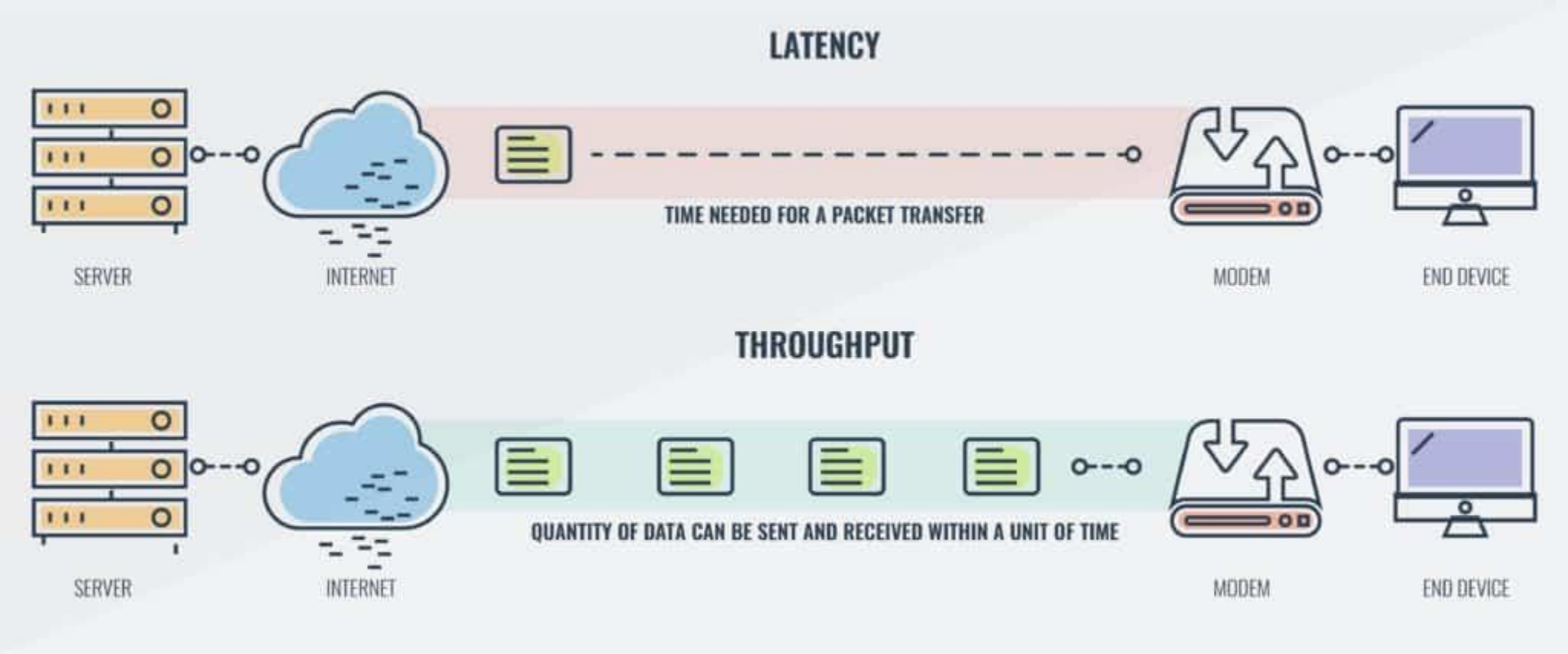
# E2E Throughput and Delay



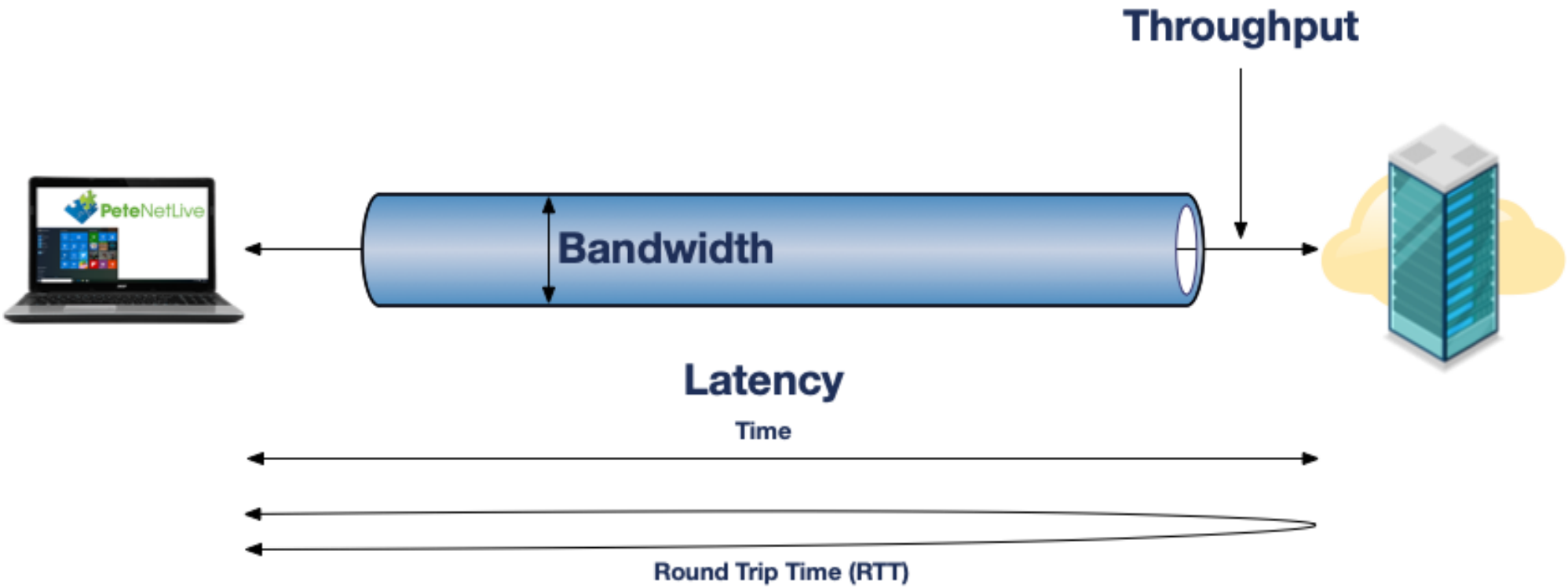
# Throughput


How to Measure Network Throughput
Like a Network Pro
Bandwidth
Throughput
300 Mbps
300 Mbps
300 Mbps
300 Mbps
300 Mbps
Latency

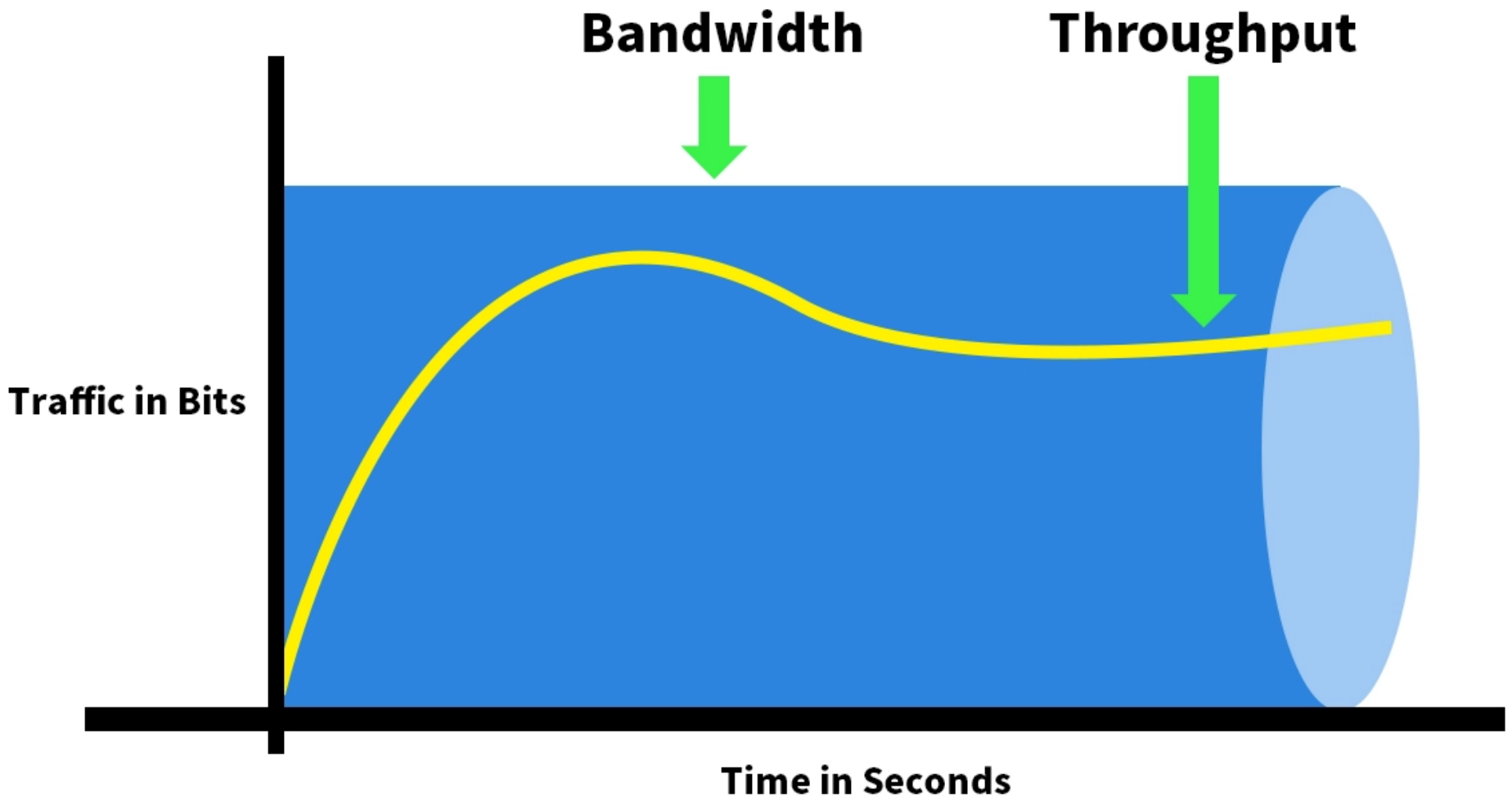
# Throughput and Latency



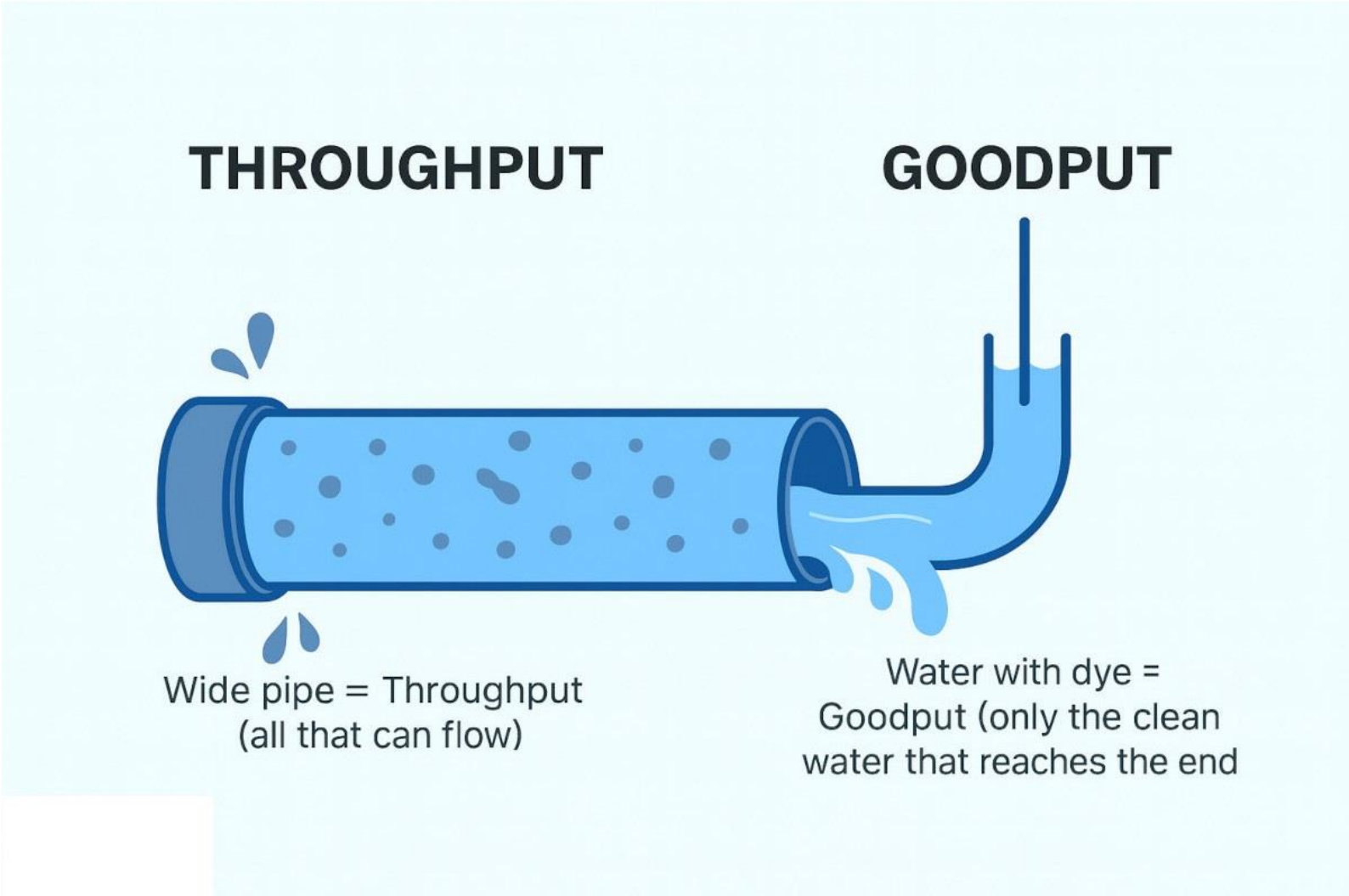
# Bandwidth Throughput and Latency



# Bandwidth vs Throughput



# Throughput and Goodput and Badput



# Definition

- Latency is the one-way delay for data to travel from source to destination.
- Round Trip Time (RTT) is the total time for a packet to go from source to destination *and* a response to come back. RTT is a common way to measure network latency, but it's often slightly more than double the one-way latency.
- Goodput measures **useful data delivered** (application data only).
- **Throughput measures total data** (useful + overhead + retransmissions) over a network link, making goodput a truer indicator of application performance, as it excludes protocol junk like headers and lost packets. In essence, throughput is the entire pipe's flow, but goodput is the actual product getting through the factory efficiently, representing the real user experience for things like file downloads or streaming.

# Question

- Compare Bandwidth and Latency
- Difference between Throughput and Goodput
- Illustrate Goodput and Badput
- Classification of Bandwidth
- Components of RTT
- E2E Delay and E2E Throughput
- E2E Goodput