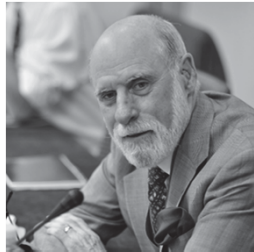




Father of the Internet



Vincent Cerf



Robert Kahn

Interesting video: <https://www.youtube.com/watch?v=xA6Ccq4sdXc>

2014 public lecture by Vincent Cerf & Robert Kahn for the 40th anniversary of Internet.



Homework: Simulation

1. Consider a sequence of packets passing through one link.

- Packets arrive one by one, and the time intervals between arriving packets satisfying a probability distribution with a mean equaling to 6 units.
- The bandwidth of the link is random, satisfying a probability distribution with a mean equaling to 0.2 packet per units.
- The size of the link buffer is 3(full buffer with three packets).
- Zero nodal processing delay & propagation delay.

You need to use python to simulate the behavior of such system with various probability distributions. Please record the average queueing delay, average delay, average throughput and loss rate. You are also required to make observations and provide intuitive explanations.