Chris Blicharz

IT 386 – Section 002

Assignment 01

1. 1. Protocol description
      1. The ATM receives input describing the account info like account numbers and password
      2. The centralized bank server will process this request and either accept or deny the information as valid, sending back the verdict to the ATM
      3. The user will select the amount to be withdrawn, which gets sent from the ATM back to the server
      4. The server checks if the account contains the desired amount of currency. If it is valid, the system deducts funds and sends back a confirmation. If not, an error will be sent back
      5. The ATM receives either confirmation or denial, then interacts with the user by either providing the cash or deny the cash
   2. A picture containing graphical user interface

      Description automatically generated
2. If a system is sending P packets assuming the N(L/R) format, the end-to-end delay formula becomes: D = P[N(L/R)]
   1. This is because each packet will have the same delay using the same formula. Delay can be written as the total delay between each instance of P
3. 1. 16
   2. 8
   3. This is possible. Two connections for any given pair can go through different routes to allow 2 other connections going the other direction
4. By content creators having their own network, the only traffic delay times they deal with is the traffic within their own system. With public networks, delays are prone due to a surplus of hosts being connected to the internet. With a privatized network, providers don’t deal with any traffic that isn’t necessary to push their own content.
5. 1. I \* L / [R (1 – (La/R)]
6. If packets are processed at 2 mbps and each packet is 2000 bytes, this means each packet will be process in 2 seconds. Seeing as though there are 6 full packets waiting to be sent while one is halfway done, this means that the delay is written as 13 seconds (2 \* 6 + 1)