Answer-1: - According to the problem provided, the application will run best on circuit switched networks.

According to the circuit switched networks, there should be a physical connection between two nodes for establishing any communication between them.

Also, according to the concept of packet switching, there does not need to be a physical connection between nodes.

So, in our internet audio chat application, we will prefer circuit switching. There are other factors to this as well. These are: -

1. Circuit switching is preferred because according to the question, the packets take a long time to reach to the other node. Hence, circuit switching will be preferred.
2. Since there are many packets to be transferred over a long period of time, circuit switched networks are preferred.
3. Circuit switched networks are preferred for our application because there is less delay in switching
4. Quality of communication is better in case of circuit switched networks which makes it good for our application
5. In circuit switching, it is easier to maintain the order of the packets which is not possible in case of packet switching making circuit switched networks ideal for our application.

Answer 2: - The author in the research paper has talked about how the United States government has introduced internet protocol to make a set of protocols for the use of internet within the government organisations as well as the corporate environments.

This architecture developed by DARPA focused more on building effective techniques on the multiplexing utilization of the existing interconnecting networks to be used on circuit switched networks.

When DARPA was building the internet protocols, they were focusing more on the accountability of the protocols and the internet for better packet travel between the two nodes. This was important at that point of time because it had to be used for military and other government organisations’ communication.

But this also meant that there was less focus on the survivability. This is understandable because it was deemed as a short-term plan. This also meant that data transfer should be done in a cost-effective measure. All the transient features had to be masked.

But with the advent and growing popularity of the internet with time, survivability also became very important. But at the time when internet protocol was being developed, the only thing that was important was accountability and not survivability.

Answer-4:-

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