**Modules:**

**1.     Leasing Model**

**2.     Relaying Strategies**

**3.     Multi-hop Transmission**

**Leasing Model:**

Utilizing the processing power of intermediary nodes is the main idea behind Network-Assisted Mobile Computing. Leasing processing power from mid-network nodes can be extremely beneficial to reduce latency and to extend the battery life of a mobile device. However, it comes with a cost. These costs can capture the fee required to lease CPU power from the mid-network nodes. Additionally, these costs may capture potential security risks by giving access of client data to these nodes. Some operations, such as trans coding, can be done on Encrypted data, while other would require decrypting the data. The mobile station send one sentence for ex: (how are you), in the application server receive the sentence into audio.

**Relaying Strategies:**

**• Amplify-and-forward**

**• Decode-and-forward**

In amplify-and-forward, the relay nodes simply boost the energy of the signal received from the sender and retransmit it to the receiver. In decode-and-forward, the relay nodes will perform physical-layer decoding and then forward the decoding result to the destinations. If multiple nodes are available for cooperation, their antennas can employ a space-time code in transmitting the relay signals. It is shown that cooperation at the physical layer can achieve full levels of diversity similar to a system, and hence can reduce the interference and increase the connectivity of wireless networks.

**Multi-hop Transmission:**

Multi-hop transmission can be illustrated using two-hop transmission. When two-hop transmission is used, two time slots are consumed. In the first slot, messages are transmitted from the mobile station to the relay, and the messages will be forwarded to the Application Server in the second slot. The outage capacity of this two-hop transmission can be derived considering the outage of each hop transmission.

**Request Size and Processing Model**

A request originates at the Mobile Station. Each request consists of M stages of processing before the desired content can begin streaming to the MS. For instance, M can represent the amount of time required to fully process the request at the MS. Because the processing power at the MS may differ from that at the AS due to different processor types and loads, M is *not* the amount of time required to fully process the request at the Application Server.