Ethernet in the First Mile:

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Ethernet in the First Mile:

Base line CDMA MAC Protocol (IEEE 802.3) can't meet the QoS requirements.

Ethernet in the First Mile must be :

    - All-switched Multi-Service Ethernet

    - All services over IP (IP over Ethernet)

Ethernet in the First Mile:

Inexpensive Ethernet 0,1/1 Mbps network cards permit customers to get high speed full duplex access to Internet by means of computers (PC,NC,notebook,PDA) via the "client – swiplex – server – Internet" diagram (Fig 1). Swiplex is the switch, which has 10 input channel C Mbps and 1 output channel 10 C Mbps.

Interconnection of customers' computers (clients) with the Swiplex could be provided by:

-xDSL modems via telephone circuits.

- cable modems via coaxial part of the hybrid fiber/coaxial TV network.

- radio modems of the wireless access networks.
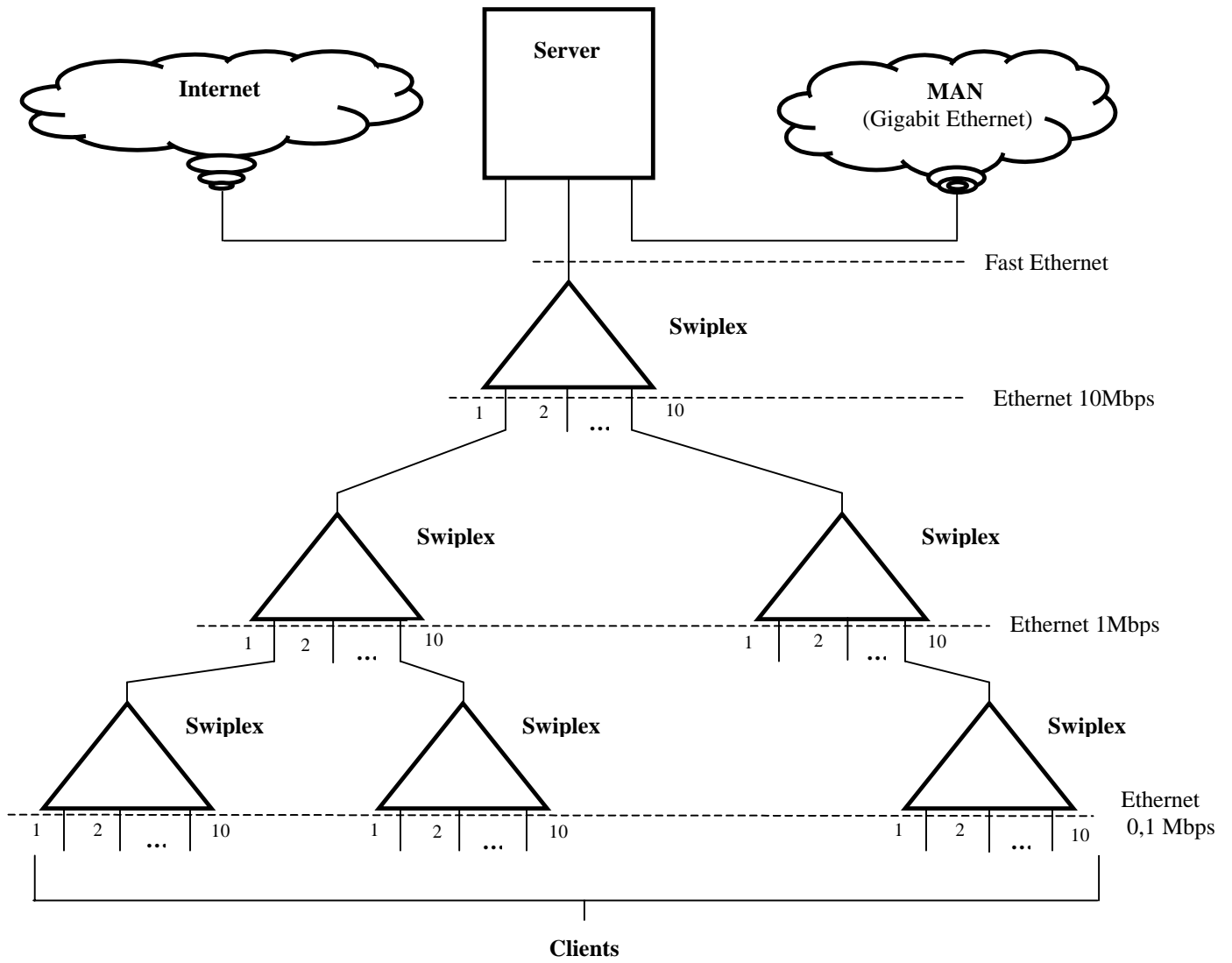
Ethernet is the First Mile.

Internet

Server

MAN
(Gigabit Ethernet)

Fast Ethernet

Swiplex

Ethernet 10Mbps

1   2   ...   10

Swiplex

Swiplex

Ethernet 1Mbps

1   2   ...   10

1   2   ...   10

Swiplex

Swiplex

Swiplex

Ethernet
0,1 Mbps

1   2   ...   10

1   2   ...   10

1   2   ...   10

Clients

Fig. 1