

Assignment

E/21/291

1. T₁ and E₁ carriers are digital carrier standards used to transmit voice or data conversations over a single physical pair of wires by using TDM.

T₁ carrier

used in USA, Canada, Japan

carries 24 voice channels

1.544 mbps

E₁ carrier

used in Europe and most of the world

carries 32 channels

2.048 mbps.

2. TDM allows multiple users to share the same physical wire by taking turns in fixed time slots.

It reduces the amount of wires needed enabling noise free long distance transmission.

3. T₁ applications

* PBX trunks: connecting a telephone network of a company to the public network

* Cell tower backbone: sending voice traffic from cell towers to main switch

E. Applications

ISDN PRI : providing digital phone lines to offices

Linking local telephone exchanges together to route calls across cities.