

Assignment

E1211291

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 at a company to the public network
- + (at tower backbone): sending voice traffic from cell towers to main switch

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B. Applications

ISDN PRI: providing digital phone lines to offices

Linking local telephone exchanges together to route calls across cities.

international, 620 or local

standard, 2M or 155M

2B+D, 64K

155M

between two telephone offices - local

distance of 20km

2B+D, 64K

ISDN PRI provides a lot more advantages than T1 and S

data rate based on actual traffic

more and more problems between users to transmission circuit. It

is interconnected methods

concentrator & S

and problems can be solved using ISDN PRI +

switches, etc.

ISDN PRI can be used with various network standards and has a