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=> Token Ring :- It's a data link technology used for local area networks (LANs). In this type of network, all devices are connected in a ring or star topology. The devices pass one or more tokens from one host to another. A token is essentially a frame of data that is transmitted between different points in the network.

- Only the host that holds the token can send data. Once the data is received an confirmed, the token is released, allowing other devices to transmit. Token Ring technology was developed by IBM in the 1980s as an alternative to Ethernet.
- Token Ring networks are designed to prevent data packet collisions on a network segment. This is possible because only the device holding the token is allowed to send data, and the number of tokens in the network is strictly controlled. When a device successfully decodes a token, it receive the encoded data.
- Token Ring was popular b/c it was effective at handling large amounts of traffic. However, it was not as suitable for large networks, especially those with widely spread or physically remote nodes.

=> Token Ring networks generally fall into two categories :

- Type 1 networks :- It can support upto 255 stations per network ring and use shielded twisted-pair wires with IBM-style Type 1 connectors.
- Type 3 networks :- It can support upto 72 stations per network and use unshielded twisted pair wires with Cat3, Cat4, or Cat5 with RJ-45

connectors like Ethernet, Token Ring operates at layer 1 and 2 of the OSI model.

→ How it works:-

Token Ring uses an access method called token passing. For any station to transmit data, it must first posses a token. The token is a unit that includes an address and the necessary protocol control information. It consists of three fields that circulate on the ring until a station captures and removes it.

- The first field in the token frame is called the starting delimiter, containing a pattern of bits that indicate the start of the frame.
- The second field is the access control field, which contains bits that control the priority of the bits waiting to be transmitted.
- The third field in the token frame is the ending delimiter.