**Definition:** Token Ring is a data link technology for [local area networks (LANs)](http://compnetworking.about.com/cs/lanvlanwan/g/bldef_lan.htm). It operates at layer 2 of the [OSI model](http://compnetworking.about.com/cs/designosimodel/g/bldef_osi.htm).

**How Token Ring Works**

Unlike all other standard forms of LAN interconnects, Token Ring maintains one or more common data frames that continuously circulates through the network. These frames are shared by all connected devices on the network as follows:

* a frame (packet) arrives at the next device in the ring sequence
* that device checks whether the frame contains a message addressed to it. If so, the device removes the message from the frame. If not, the frame is empty (called a *token frame*).
* the device holding the frame decides whether to send a message. If so, it inserts message data into the token frame and issues it back onto the LAN. If not, the device releases the token frame for the next device in sequence to pick up
* the above steps are repeated continuosly for all devices in the token ring

**Characteristics of Token Ring Networks**

Token Ring was developed by IBM during the 1980s as an alternative to [Ethernet](http://compnetworking.about.com/cs/ethernet1/g/bldef_ethernet.htm). Starting in the 1990s, it significantly decreased in popularity and gradually was phased out of [business networks](http://compnetworking.about.com/od/networkdesign/a/introduction-to-business-computer-networks.htm) as [Ethernet](http://voip.about.com/od/voipbasics/g/whatisEthernet.htm) technology began to dominate LAN designs.

Standard Token Ring supports only up to 16 [Mbps](http://compnetworking.about.com/od/speedtests/g/kbps-mbps-gbps-network-bit-rates.htm). In the 1990s, an industry initiative called *High Speed Token Ring* developed technology for extending Token Ring to 100 Mbps equal to Ethernet, but insufficient interest in the marketplace existed for HSTR products and the technology was abandoned.

## Definition - What does Token Ring Network mean?

A token ring network is a local area network (LAN) topology where nodes/stations are arranged in a ring topology. Data passes sequentially between nodes on the network until it returns to the source station. To prevent congestion and collision, a token ring topology uses a token to ensure that only one node/station on the line is used at a time, thereby easily denoting media users of its activity.

A token ring LAN is physically wired as a star topology but configured as a ring topology.

The token ring LAN system was standardized by the Institute of Electrical and Electronics Engineers as IEEE 802.5.

## Techopedia explains Token Ring Network

Initially, the token ring LAN highlighted, debated advantages over the Ethernet. During the 1990s, token-ring LAN pricing and usage gradually declined as switched Ethernet and faster variants hit the market.   
  
In the mid-1980s, token ring LAN speeds were standardized between 4 and 16 Mbps.   
  
The token ring LAN process is delineated by the following sequence of events:

* A token continually circulates inside the toke ring LAN
* To transmit a message, a node inserts a message and destination address inside an empty token.
* The token is examined by each successive node.
* The destination node copies the message data and returns the token to the source with the source address and a data receipt message.
* The source receives the returned token, verifies copied and received data and empties the token.
* The empty token now changes to circulation mode, and the process continues.

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