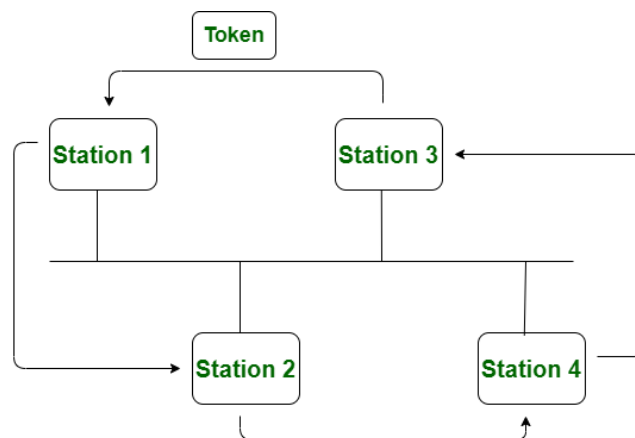


Difference between Token Bus and Token Ring Network

Token Bus

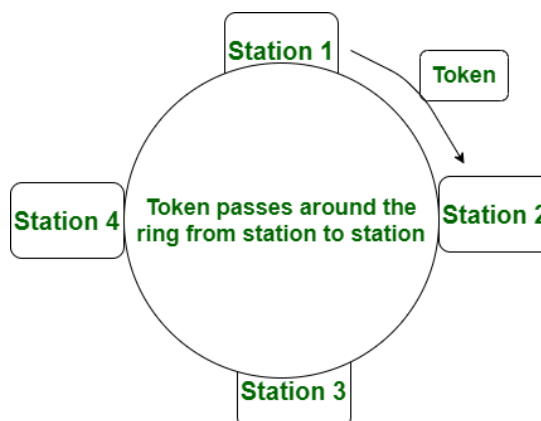
- **Token Bus** network is a standard in which tokens are passed along a virtual ring.
- In the token bus network bus topology is used as physical media.
- virtual ring is created with stations and therefore tokens are subsequently passed from a station during a sequence with this virtual ring.
- Every station or node in the token bus network knows the address of its predecessor station and its successor station.
- A node (station) can transmit the data if and only if it has a token. Its working rule is analogous to the token ring network.



Token Bus

Token Ring

- **Token Ring** is defined by the IEEE 802.5 standard.
- In the token ring network, the token is passed over a physical ring instead of a virtual ring.
- Token is a special frame and a station can transmit the data frame if and only if it has a token. And The tokens are issued on successful receipt of the data frame.



Token Ring

Difference between the Token Bus and the Token Ring:

| S. No. | Token Bus Network | Token Ring Network |
|---------------|---|---|
| 1. | In the token bus network, the token is passed along a virtual ring. | While in the token ring network the token is passed over a physical ring. |
| 2. | The token bus network is simply designed for large factories. | While the token ring network is designed for the offices. |
| 3. | The token bus network is defined by the IEEE 802.4 standard. | While the token ring network is defined by the IEEE 802.5 standard. |
| 4. | Token bus network provides better bandwidth. | While the token ring network does not provide better bandwidth as compared to the token bus. |
| 5. | In a token bus network, Bus topology is used. | While in token ring network, Star topology is used. |
| 6. | The maximum time it takes to reach the last station in a token bus network cannot be calculated. | While the maximum time to reach the last station in the token ring network can be calculated. |
| 7. | In a token bus network, coaxial cable is used | In token ring network, twisted pair and fiber optic is used. |
| 8. | In a token bus network, the cable length is 200m to 500m. | In a token ring network, the cable length is 50m to 1000m. |
| 9. | In token bus network, distributed algorithm provide maintenance. | In a token ring network, a designated monitor station performs station maintenance. |
| 10. | The priority handling mechanism is not associated with the transmission of data through workstations with this network. | The priority handling mechanism is associated with the transmission of data through workstations with this network. |
| 11. | These networks are not much reliable. | These networks are reliable. |
| 12. | It does not keep routing details. | It keeps the information of routing. |
| 13. | The network is less expensive compared to the Token Ring network. | It is expensive. |