

Linked state Routing

Steps.....

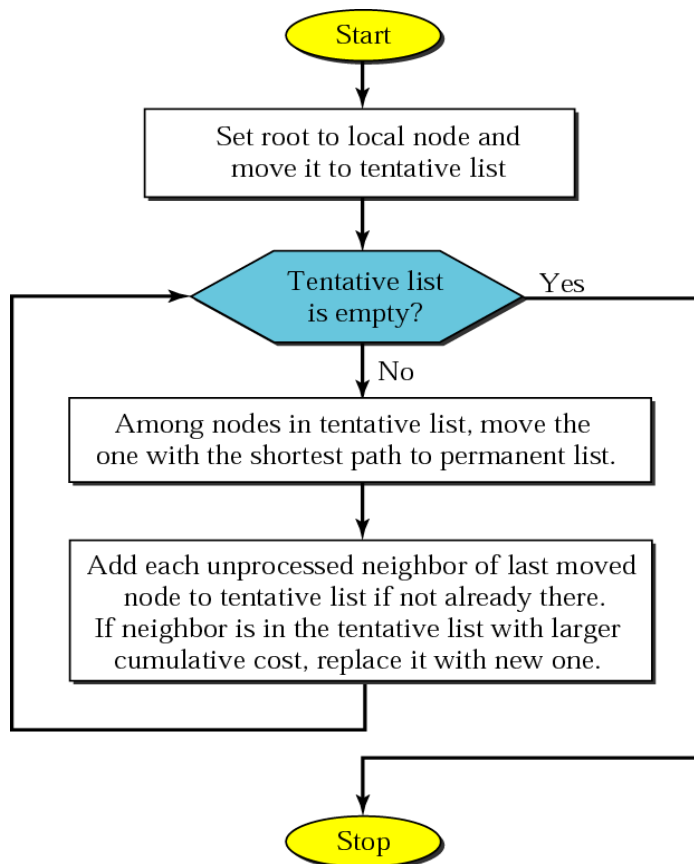
1. Creation of Link state packet (LSP) –

- Creation of small packet that contains routing information.
- Link state packet is created by each and every node in the network.
- LSP contains information such as,
 - Node identity
 - List of link
 - Sequence number – facilitates flooding & distinguishes new & old LSP.
 - Age (in terms of time) – prevents old LSPs from remaining in the domain for long time.
- LSP are generated in 2 cases
 - When change in topology
 - On periodic basis

2. Flooding LSP.... (Sending LSP)

- After node has prepared LSP, it must be sent to all other nodes.
- Each router sends(broadcasts) LSP to every other router on the internetwork except its neighbors. This process is known as Flooding.
- Node that receives the LSP compares it with the copy it may already have.
- If received LSP is older than the one, discard it. (Sequence number & age).
- If received LSP is newer,
 - Discard the old, keep new.
 - Sends copy of it to each interface **except from which it is received.**

3. Formation of shortest path tree (Dijkstra's algorithm)



4. Calculation of a routing table based on shortest path tree

- On the basis of this tree, routing table is populated.