Mikrotik User Meeting

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Multi Protocol Label Switching

What is MPLS?

- MPLS is type of data carrying technique for high performance telecommunication network
- MPLS is a new forwarding mechanism in which packets are forwarded based on labels.
- Labels can also correspond to other parameters, such as quality of service (QoS) or source address.

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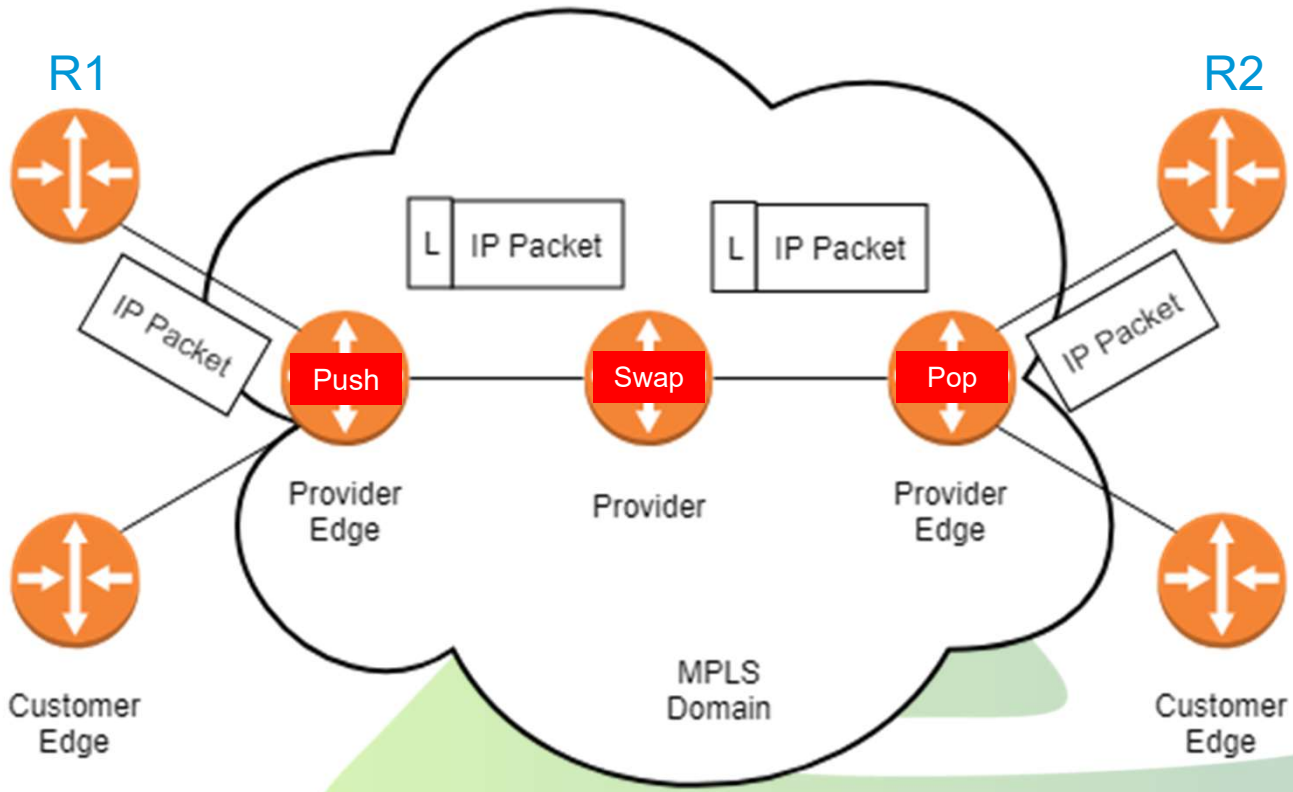
How MPLS work?



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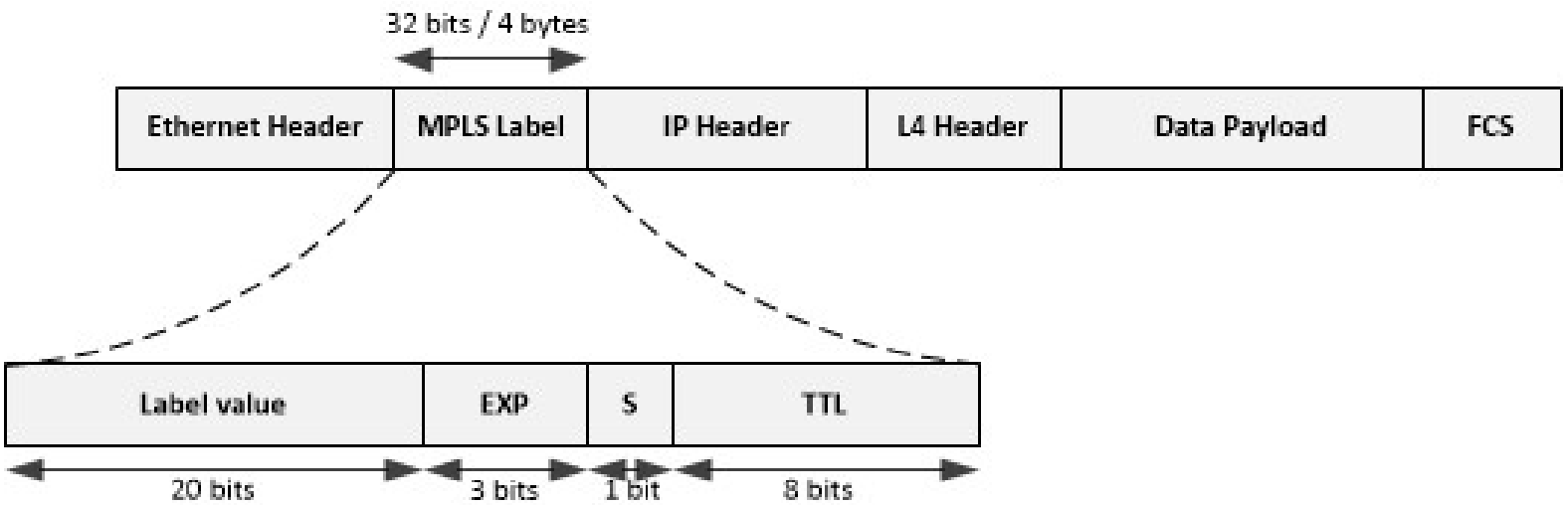
MPLS Label



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MPLS Traffic Engineering

What is MPLS Traffic Engineering?

- Traffic Engineering is one of many service that we can use in MPLS.
- Traffic Engineering refers of the process of selecting path which traffic will be sent through that network.
- MPLS traffic engineering requires OSPF or ISIS with extensions for MPLS TE as the IGP.
- RSVP or CR-LDP is used to establish traffic engineering tunnels (TE tunnels) and propagate labels.

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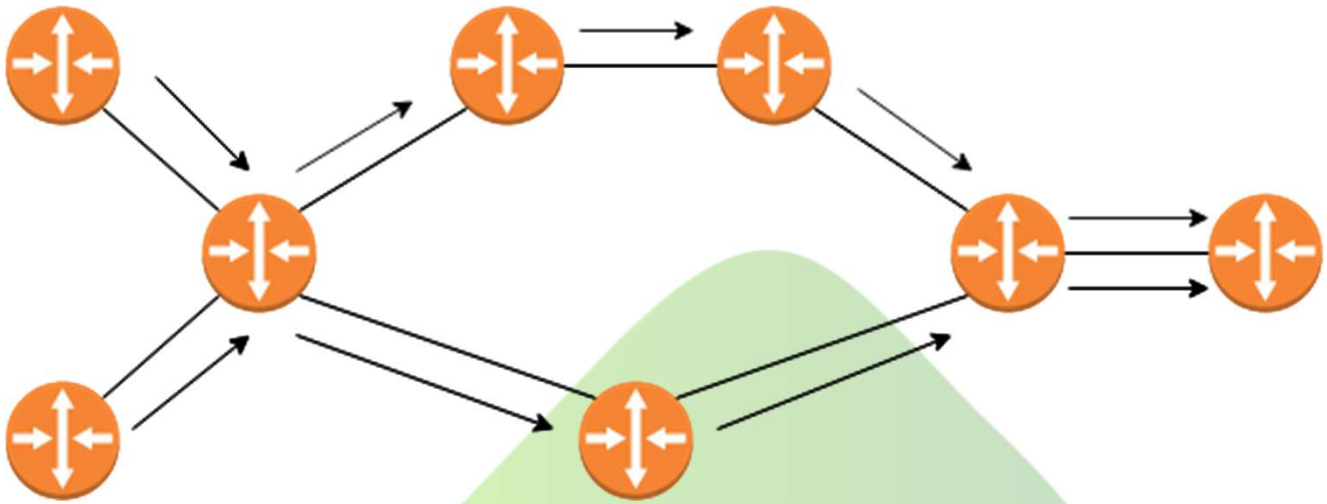
How MPLS Traffic Engineering work?



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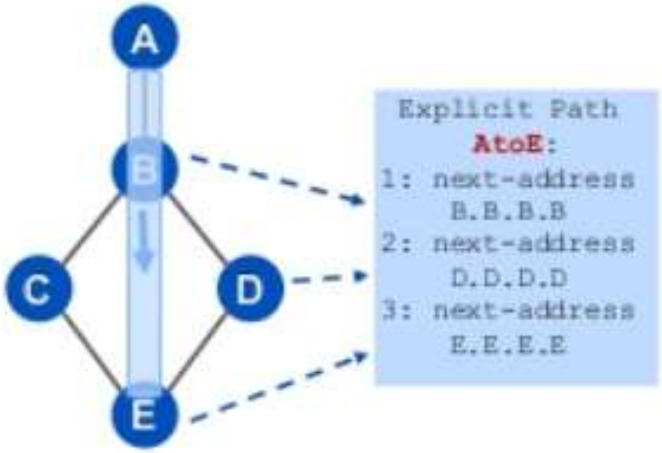
Path Selection

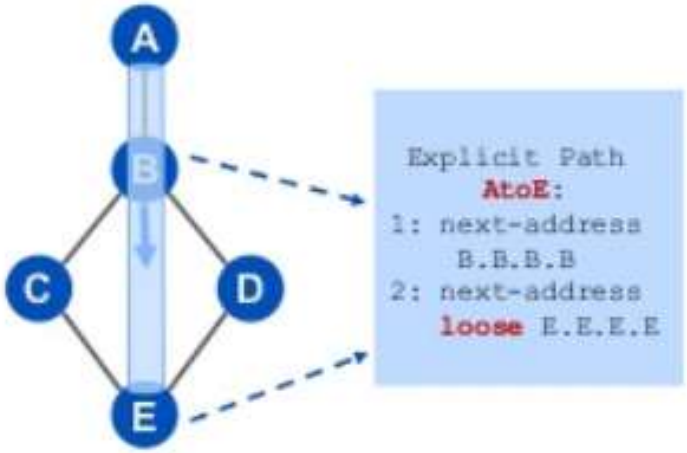
Strict Path

A network node and its preceding node in the path must be adjacent and directly connected.



Loose Path

A network node must be in the path but is not required to be directly connected to its preceding node.



MPLS TE Services

- TE Fast Re-Route
- TE Path Protection

Why MPLS Traffic Engineering?

- Handling unexpected congestion
- Better utilization of available bandwidth
- Route around failed links/nodes
- Capacity planning

Thank you☺

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