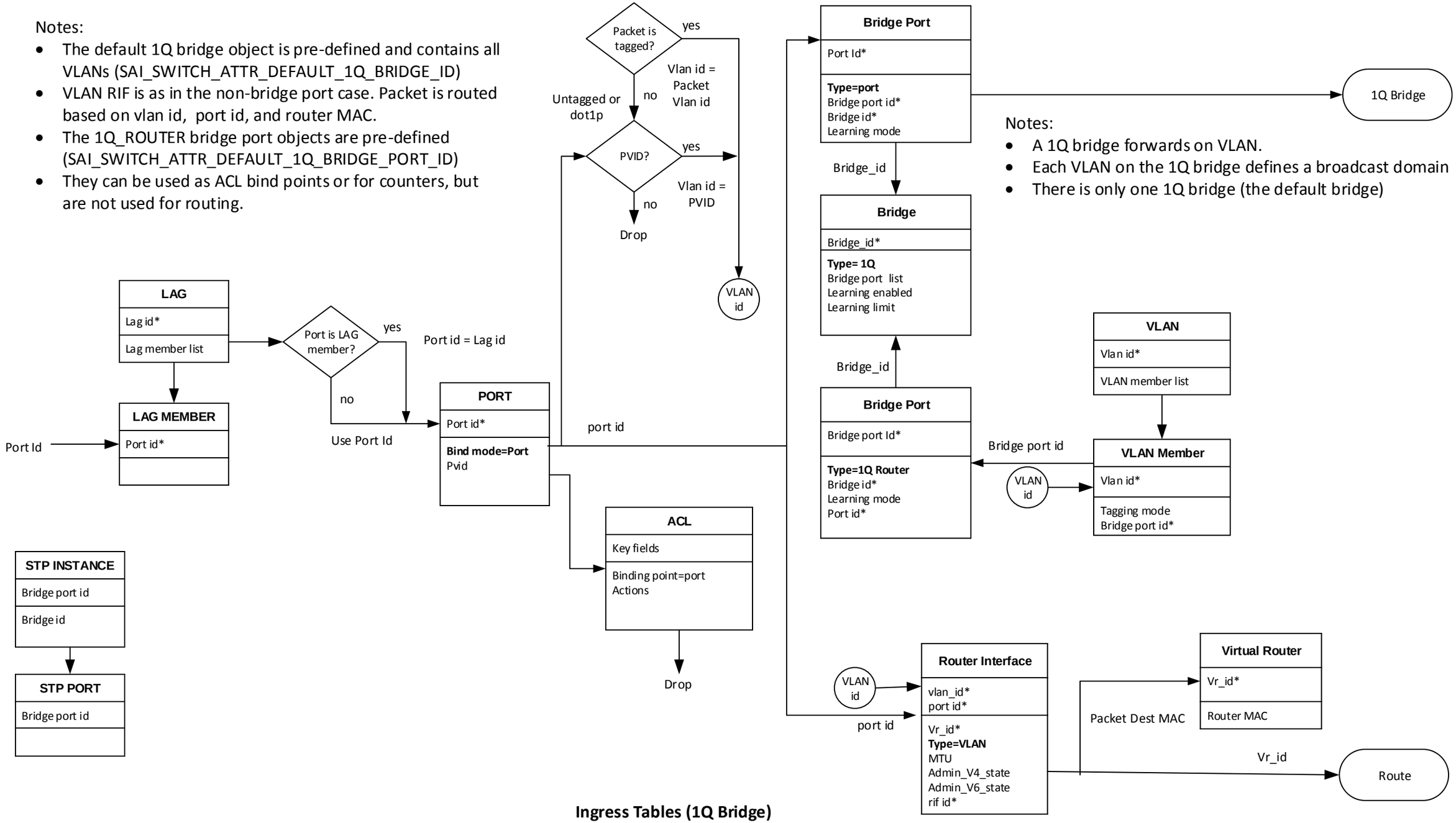
Notes:

- The default 1Q bridge object is pre-defined and contains all VLANs (SAI_SWITCH_ATTR_DEFAULT_1Q_BRIDGE_ID)
- VLAN RIF is as in the non-bridge port case. Packet is routed based on vlan id, port id, and router MAC.
- The 1Q_ROUTER bridge port objects are pre-defined (SAI_SWITCH_ATTR_DEFAULT_1Q_BRIDGE_PORT_ID)
- They can be used as ACL bind points or for counters, but are not used for routing.



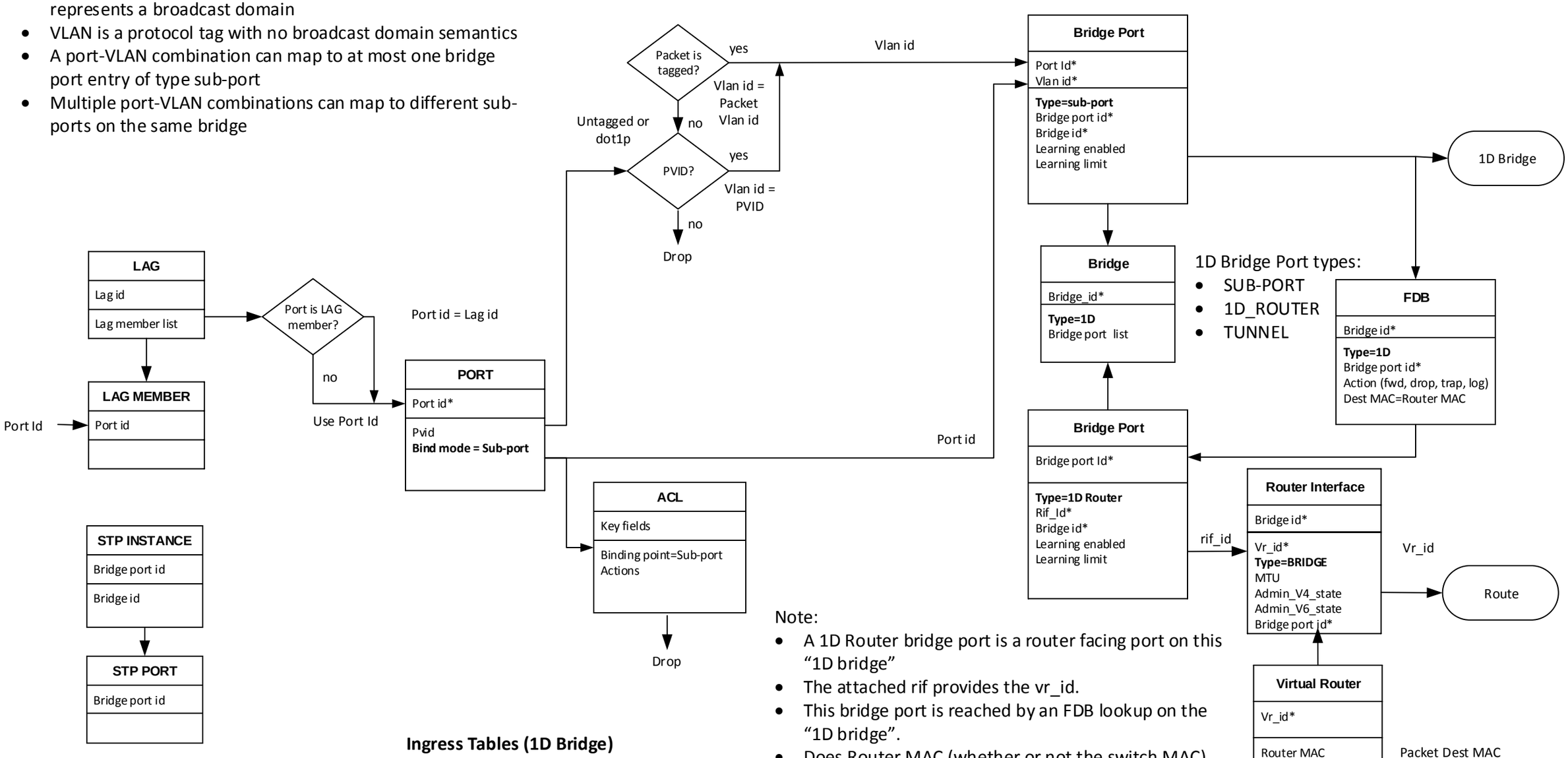
Notes:

- A 1Q bridge forwards on VLAN.
- Each VLAN on the 1Q bridge defines a broadcast domain
- There is only one 1Q bridge (the default bridge)

Ingress Tables (1Q Bridge)

Notes:

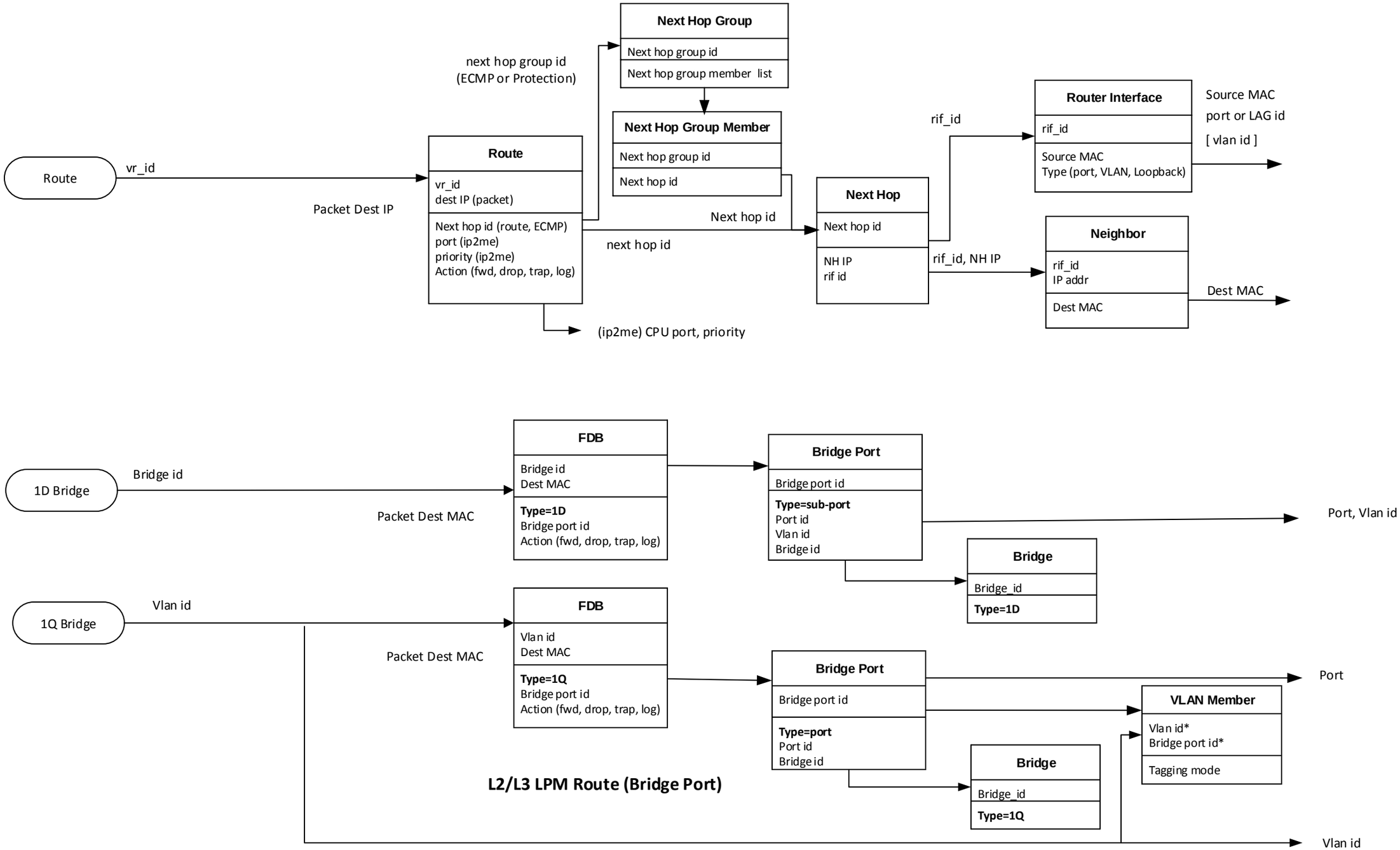
- A 1D bridge forwards on bridge id instead of VLAN. Bridge id represents a broadcast domain
- VLAN is a protocol tag with no broadcast domain semantics
- A port-VLAN combination can map to at most one bridge port entry of type sub-port
- Multiple port-VLAN combinations can map to different sub-ports on the same bridge

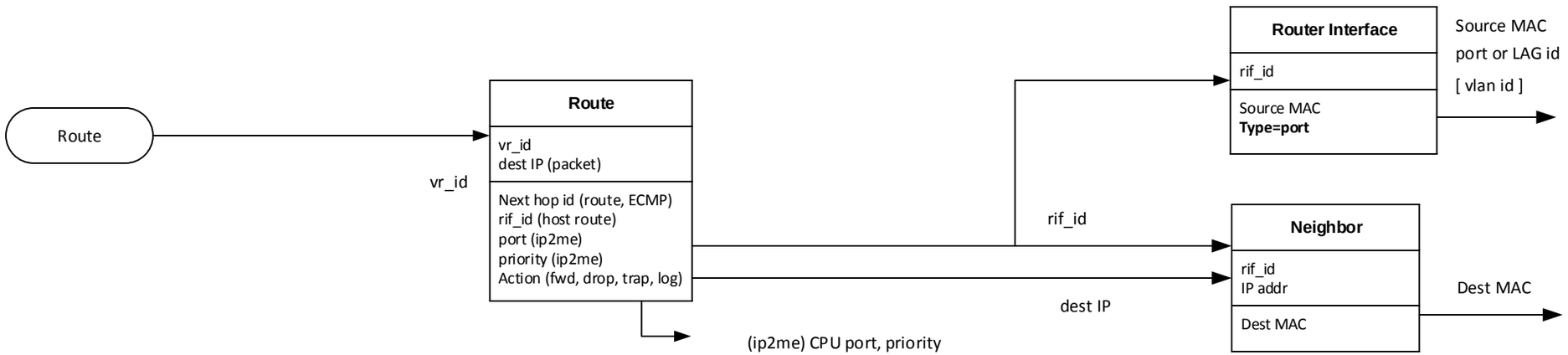


Ingress Tables (1D Bridge)

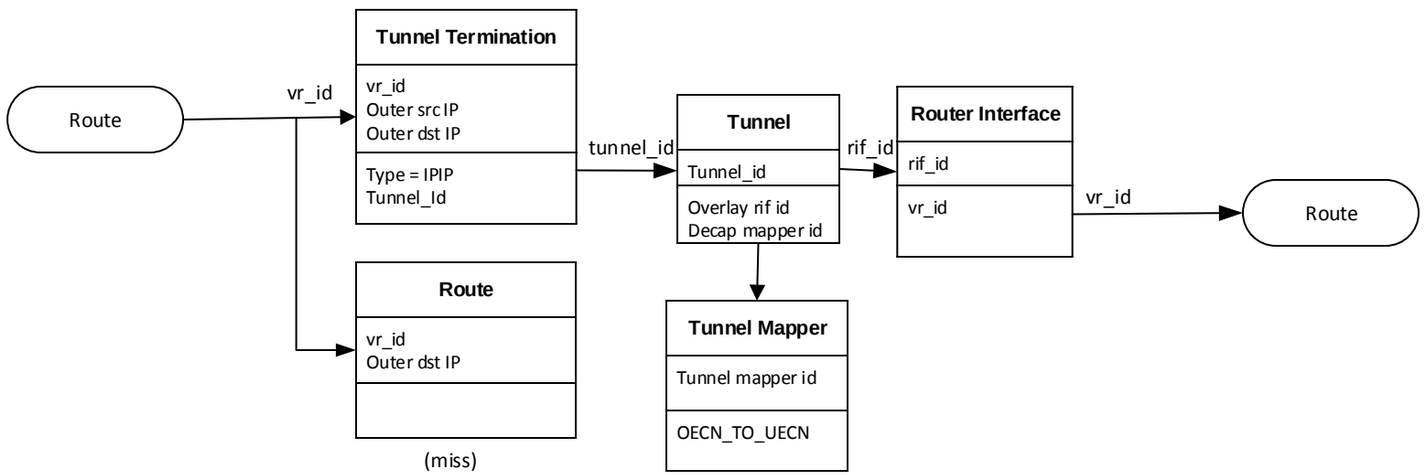
Note:

- A 1D Router bridge port is a router facing port on this "1D bridge"
- The attached rif provides the vr_id.
- This bridge port is reached by an FDB lookup on the "1D bridge".
- Does Router MAC (whether or not the switch MAC) have to be programmed in the FDB and require a bridge port of type 1D Router?

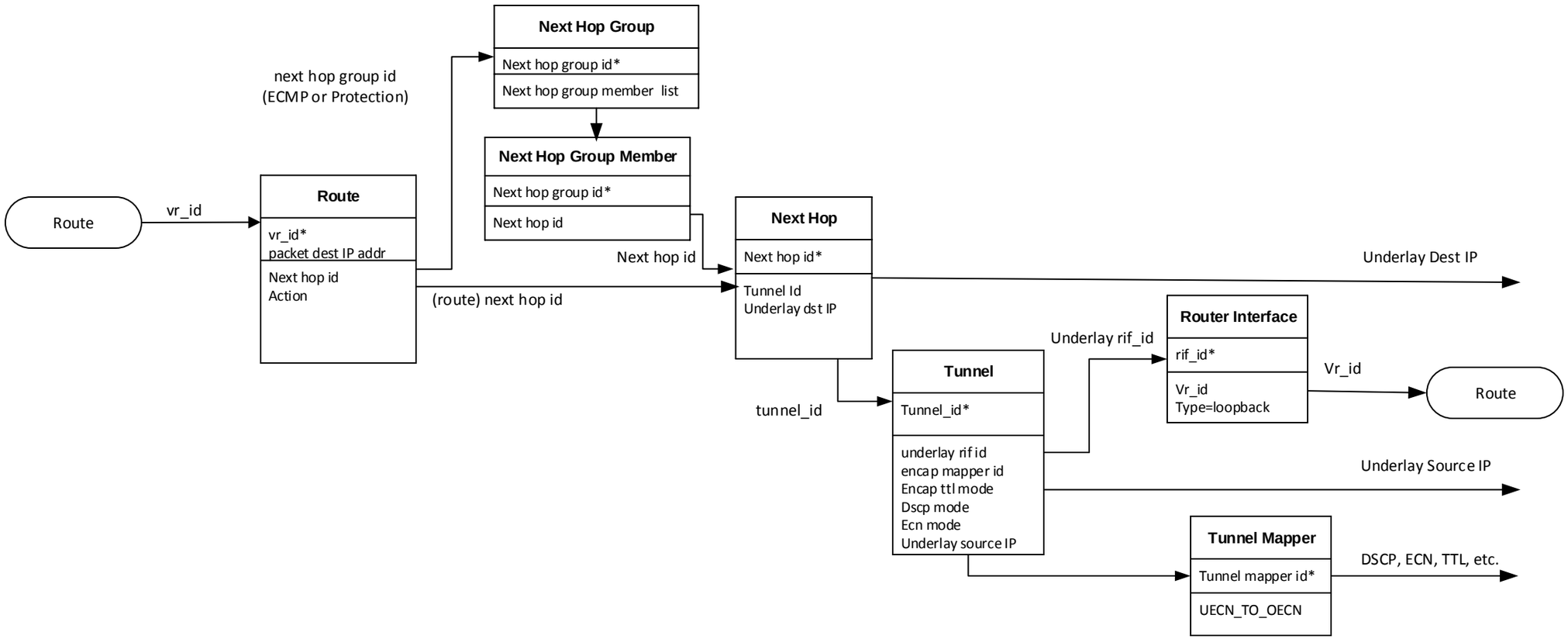

Next Hop Group
Next hop group id
Next hop group member list
next hop group id
(ECMP or Protection)
Next Hop Group Member
Next hop group id
Next hop id
Route
vr_id
Route
vr_id
dest IP (packet)
Packet Dest IP
Next hop id (route, ECMP)
port (ip2me)
priority (ip2me)
Action (fwd, drop, trap, log)
Next hop id
next hop id
(ip2me) CPU port, priority
Next Hop
Next hop id
NH IP
rif id
rif_id
rif_id, NH IP
Router Interface
rif_id
Source MAC
Type (port, VLAN, Loopback)
Source MAC
port or LAG id
[vlan id]
Neighbor
rif_id
IP addr
Dest MAC
Dest MAC
1D Bridge
Bridge id
FDB
Bridge id
Dest MAC
Type=1D
Bridge port id
Action (fwd, drop, trap, log)
Packet Dest MAC
Bridge Port
Bridge port id
Type=sub-port
Port id
Vlan id
Bridge id
Port, Vlan id
Bridge
Bridge_id
Type=1D
1Q Bridge
Vlan id
FDB
Vlan id
Dest MAC
Type=1Q
Bridge port id
Action (fwd, drop, trap, log)
Packet Dest MAC
Bridge Port
Bridge port id
Type=port
Port id
Bridge id
Port
VLAN Member
Vlan id*
Bridge port id*
Tagging mode
Bridge
Bridge_id
Type=1Q
Vlan id
L2/L3 LPM Route (Bridge Port)



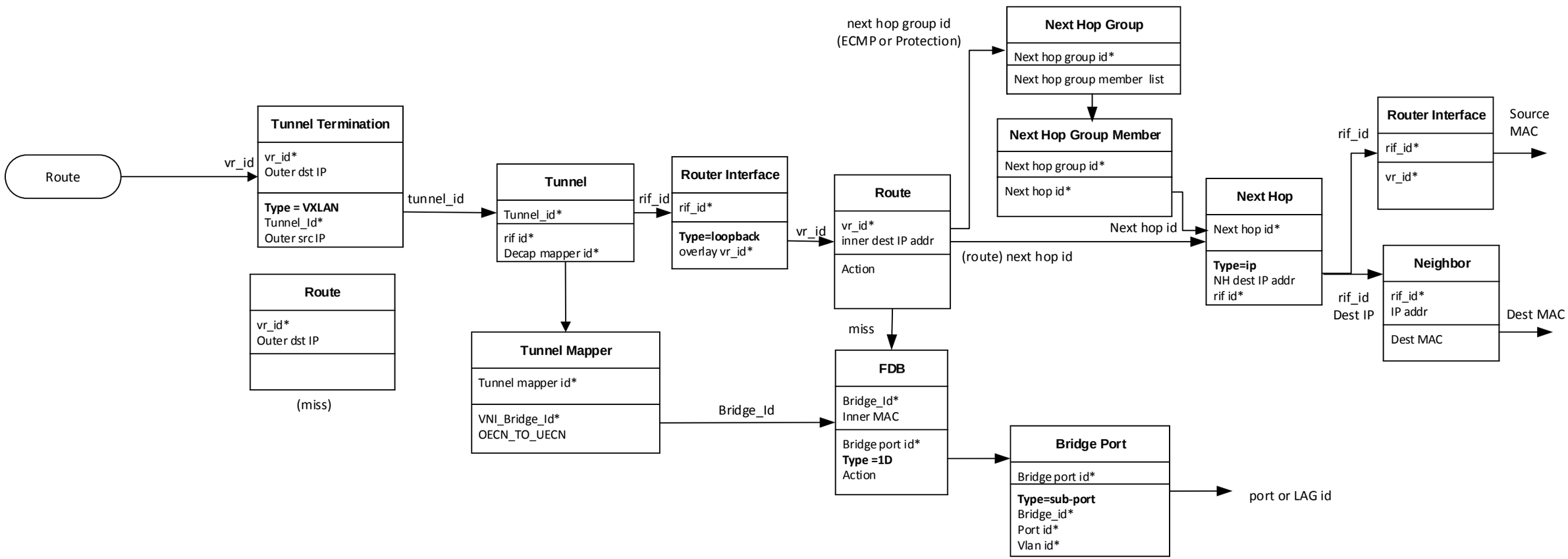
L3 Host Route



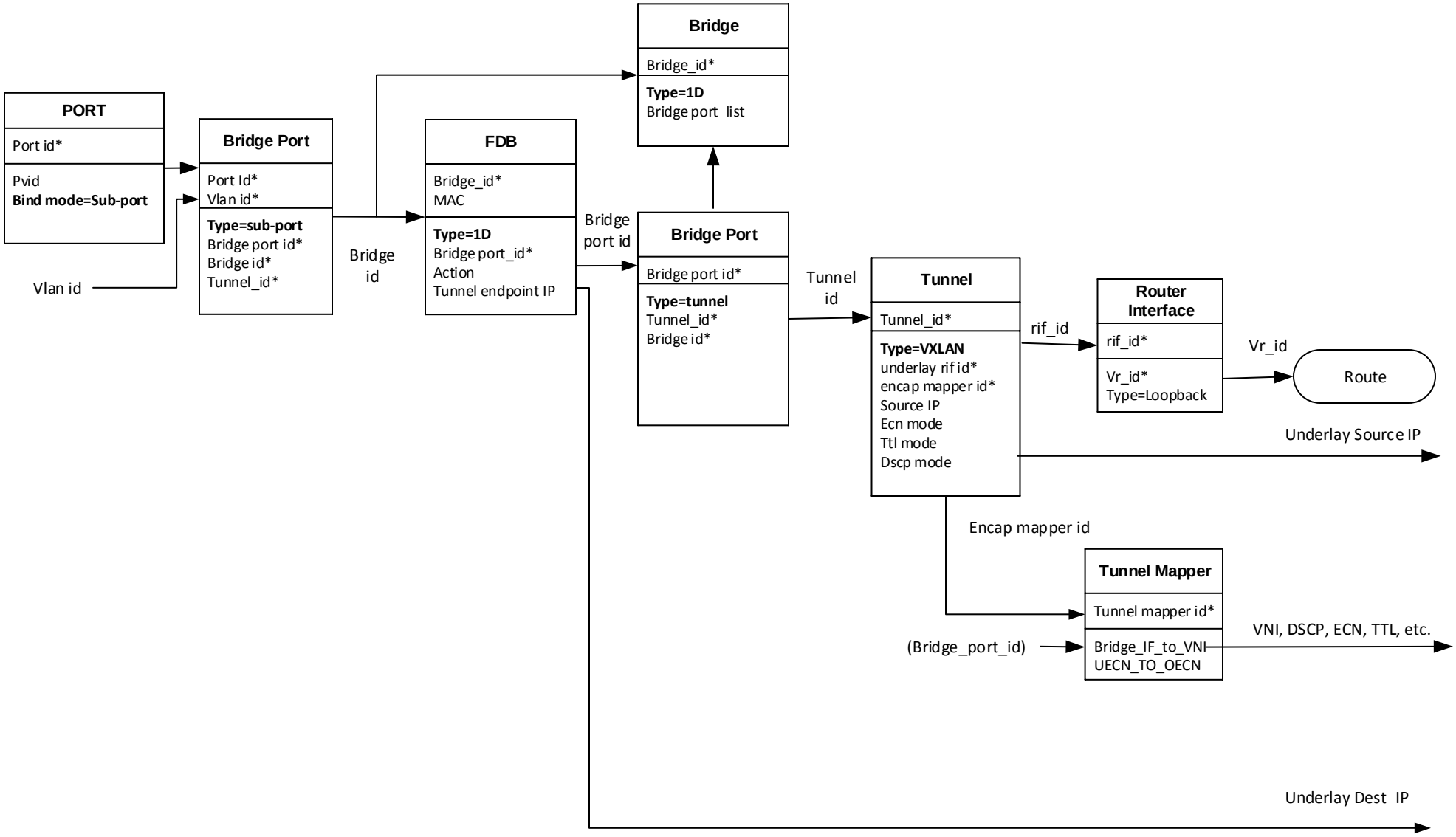
IPIP Tunnel Decap



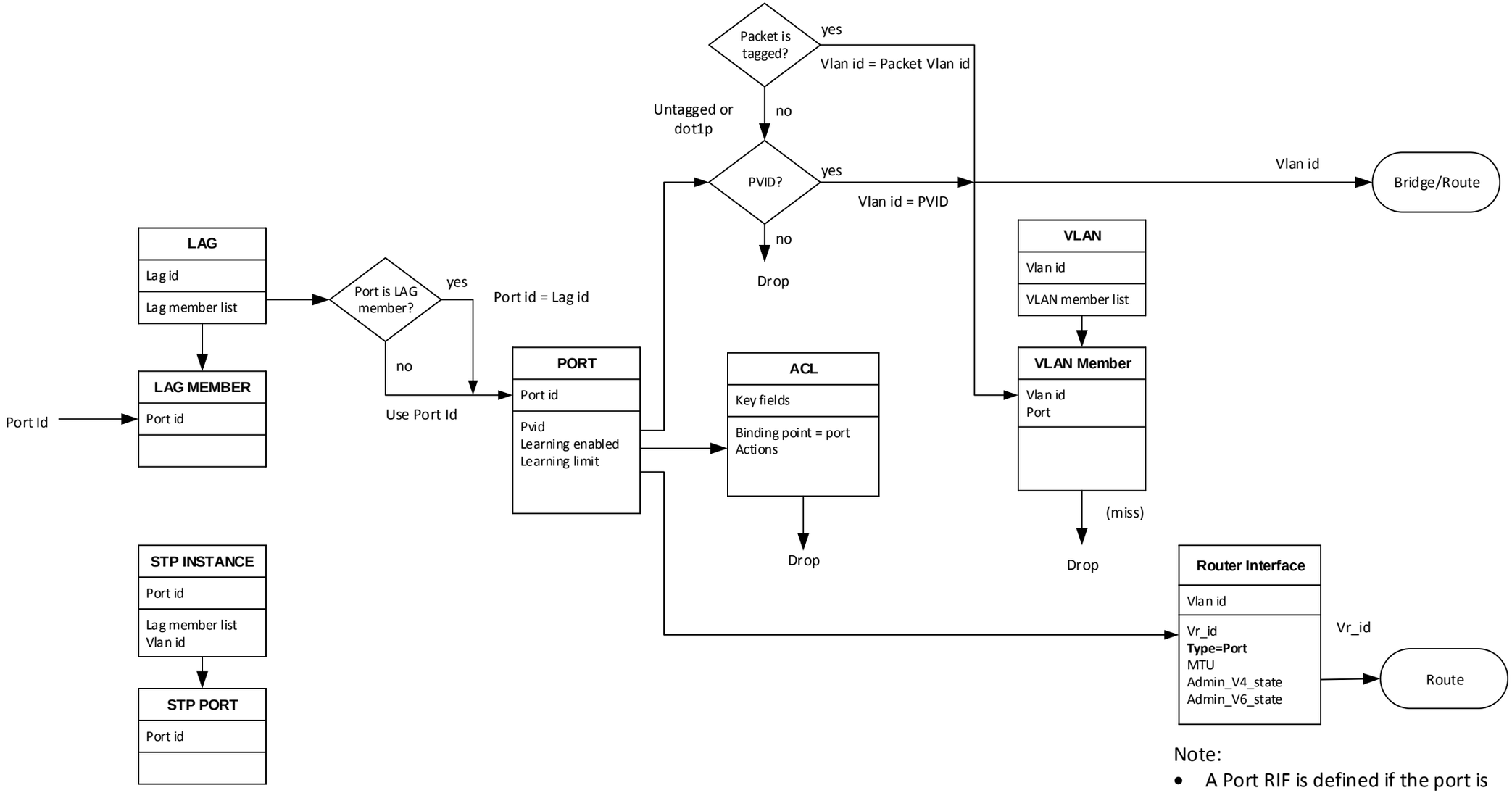
IPIP Tunnel Encap



VXLAN Tunnel Decap (Network to Access, Bridge Port)



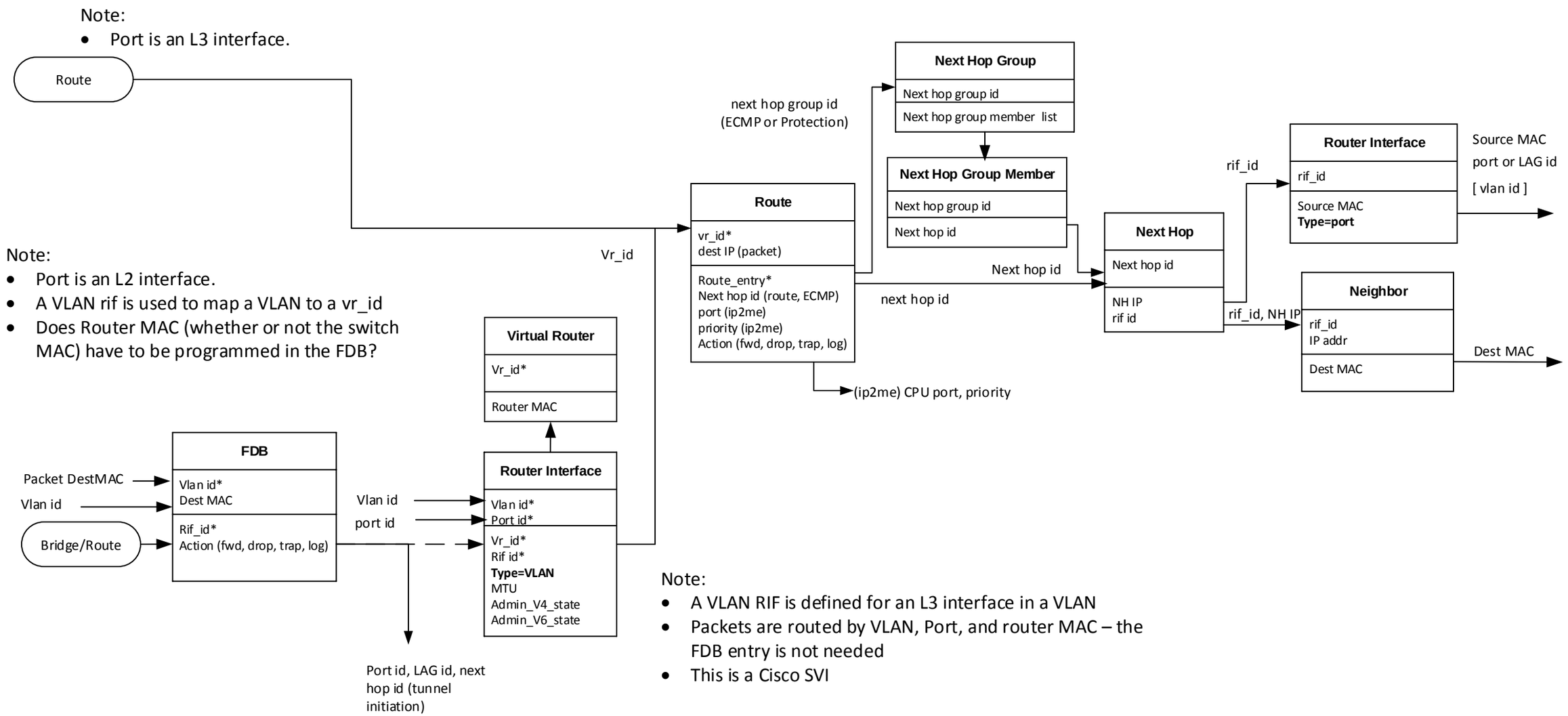
VXLAN Tunnel Encap (Access to Network, Bridge Port)



Ingress Port/VLAN (No Bridge Port)

Note:

- A Port RIF is defined if the port is configured as an L3 interface.
- This is a Cisco L3 interface



L2/L3 LPM Route (No Bridge Port)