

# Group Policy ID BGP Extended Community

## draft-wlin-bess-group-policy-id-extended-community-01

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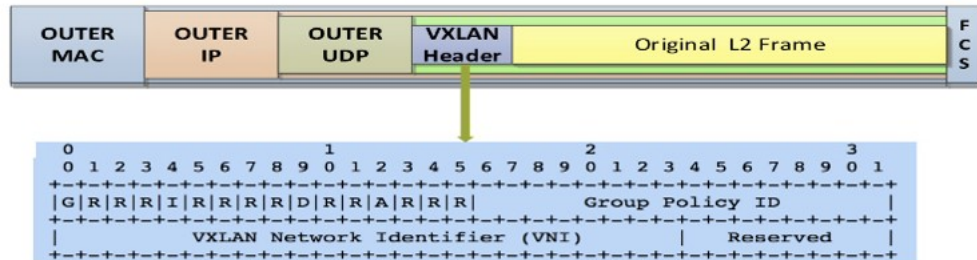
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# EVPN-VXLAN Group Based Policy

Group Based Policy for EVPN-VXLAN is used to achieve micro-segmentation for EVPN-VXLAN and allows for a granular level of segmentation.

It is achieved by carrying a Group Policy ID, a 16-bit tag, in the VXLAN header in the data plane

The VXLAN header for carrying Group Policy ID is defined in the draft <https://datatracker.ietf.org/doc/html/draft-smith-vxlan-group-policy>



## VXLAN header format with 16-bits of Group Policy ID (Tag)

# Policy Enforcement

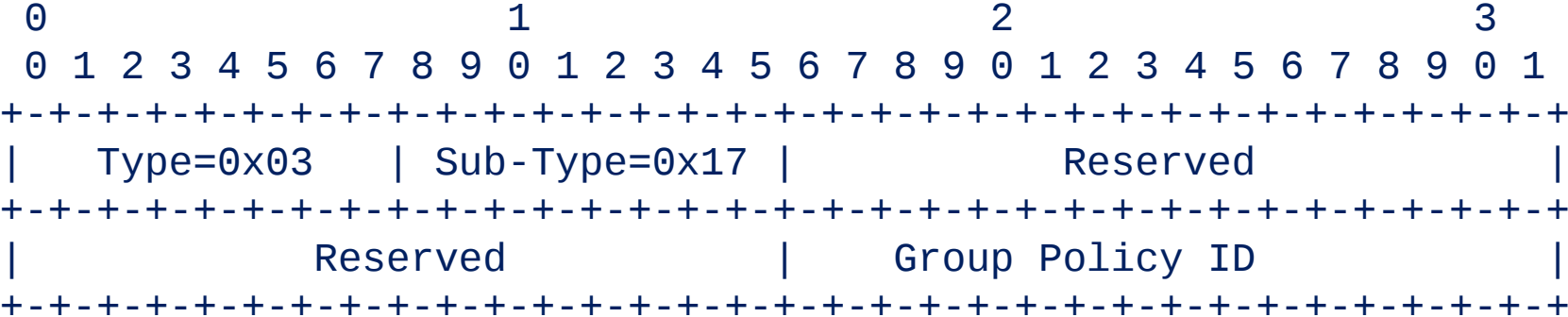
## Group Based Policy enforcement at an egress node

- When the source Group Policy ID is propagated through the data plane to the remote VXLAN tunnel endpoint, the policy enforcement is carried out at the egress node based on both the source and destination Group Policy tags.
- It could lead to insufficient use of bandwidth if the policy rule enforcement results in the drop of the packet.

## Group Based Policy enforcement at an ingress node

- Can potentially save core bandwidth
- The need to signal destination Group Policy ID from an egress node to ingress nodes

# Group Based Policy ID Extended Community



A transitive Opaque Extended Community

Group Policy ID (GPI): 16-bit long and it encodes the value of a Group Policy ID.

Can be carried by EVPN Type-2, Type-5 and EVPN Type-3 routes in the control plane to achieve policy enforcement at an ingress node.

## Next Step

- Will add additional procedure for EVPN DCI use case
- Request feedbacks from the working groups

Thank You