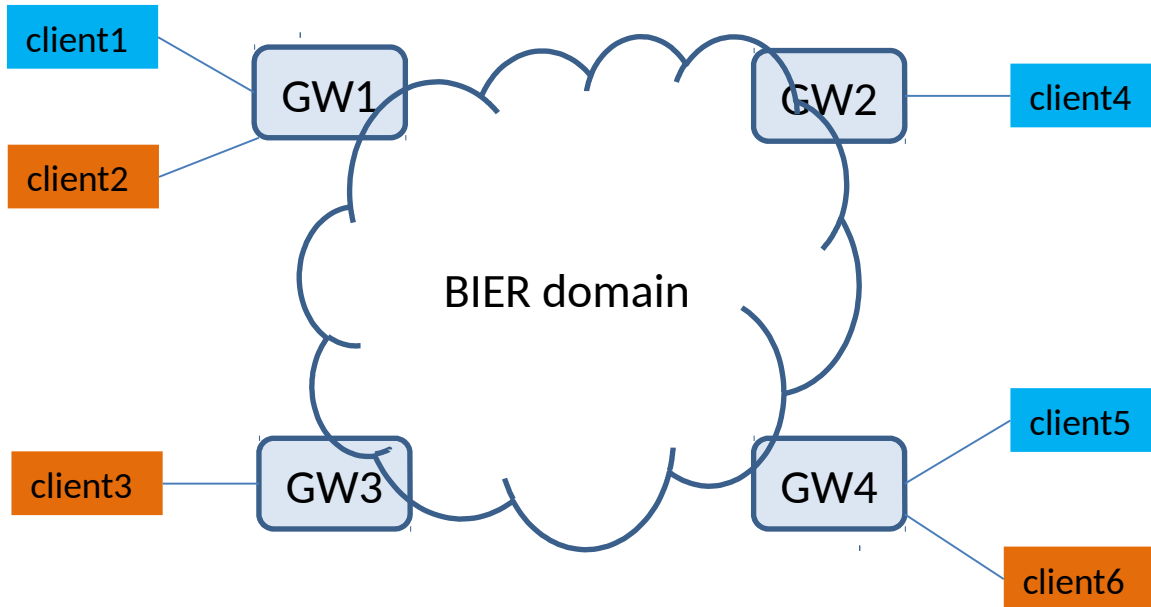# Global vpnid advertisement in BIER overl ay
draft-pengzhang-bier-global-vpnid-00

BIER WG

IETF103# Bangkok

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Problem Statement

client1
client2

GW1

BIER domain

GW2

client4

client3

GW3

GW4

client5

client6

Client1, Client4, Client5 belongs to Group1
Client2, Client3, Client6 belongs to Group2

Requirement:

- L3 network

- Isolation

- BUM

- Simple

Candidate solutions:
- MVPN (BGP/RD/ RT …) ---- many configurations
- Controller --- unavailable in some situations

Solution

- An unique identifier is used to indicate the "group" --- global vpn-id.

- BIER overlay protocols advertise the global vpn-id.

- A new protocol type which indicates global vpn-id should be defined in BIER header.

- Like VNI-VSID usage in [draft-ietf-bier-evpn].

- Extended BIER overlay protocol: MLD/ PIM/ BGP.
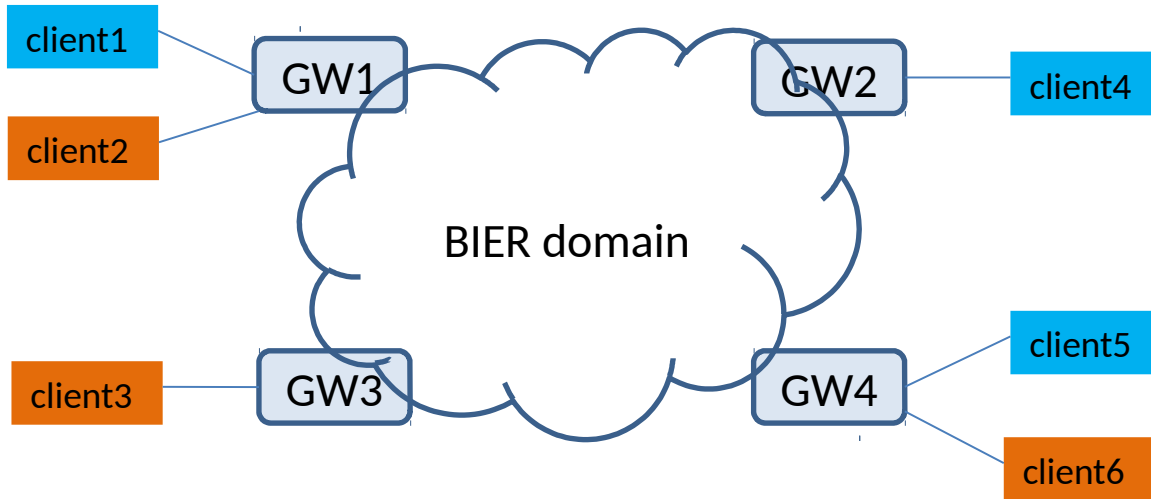
- Global vpn-id1 indicates group1; global vpn-id2 indicates group2.
- GWs advertise the associated global vpn-ids to each other.
- Ingress router, like GW1, encapsulates BUM packets from client1 with global vpn-id 1, then encapsulates outer BIER header BitString with GW2/GW4.
- When packets reach GW2/GW4, egress router removes BIER header and find the group1 according to the immediate global vpn-id.
- Then egress router forwards packet to associated client4/client5.

- Any comment is welcomed ^^

Thanks!