# VLAN Configuration Guide in Split-NVE

Li Yizhou     liyizhou@huawei.com

Lucy Yong     lucy.yong@huawei.com

draft-yizhou-nvo3-vlan-config-in-split-nve

# Expected Behaviors in Split NVE

| | Direct connection | Indirect connection |
|---|---|---|
| **Traditional forwarding** |  |  |
| **RR forwarding** |  |  |

RR: Reflective Relay. A received frame on a port that supports reflective relay mode can be forwarded on the same port on which it was received.

# Configure VLAN in split NVE

- Generic rule: configure VLAN on per VN base locally.

- Exceptional case: RR Mode in Indirect Connection. Intermediate bridge will directly forward packet based on the VLAN since it is not aware of RR mode. (If intermediate bridge can be upgraded to know it, then another story)

- VLAN configuration guide in that case:

  - Option 1: configure VLAN ID per VM to prevent the switching on the intermediate bridge. Consume VID, NVE has heavy work to do for both unicast and multicast

  - Option 2: configure intermediate bridge as private VLAN [RFC5517] deployment; up-port: primary VLAN and Promiscuous Port and disable MAC learning; down-port: Secondary VLAN and Isolated Port. Shared VLAN learning between primary and secondary VLAN. Per-VN base. Each VN consumes two VLAN IDs.

# Summary

- If we do not want to upgrade intermediate bridge, then VLAN configuration in RR mode & indirect connection is tedious.

- If NVO3 wants to support this scenario, such informational guide would be useful.