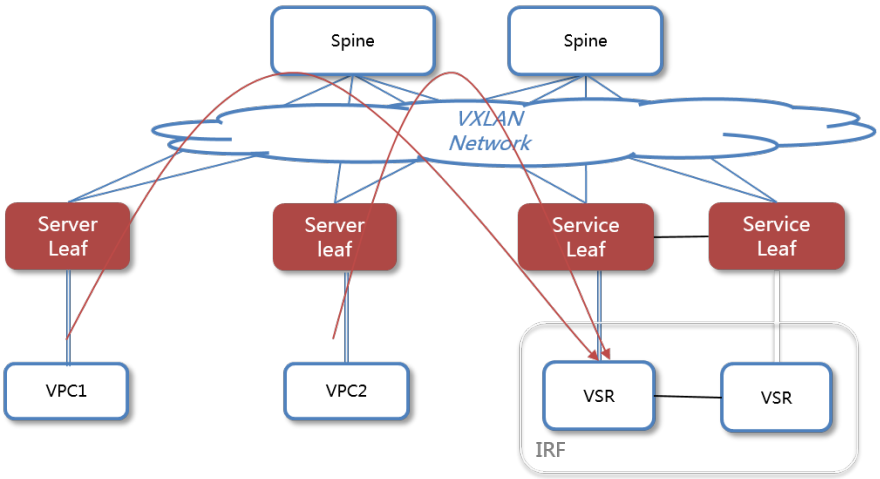
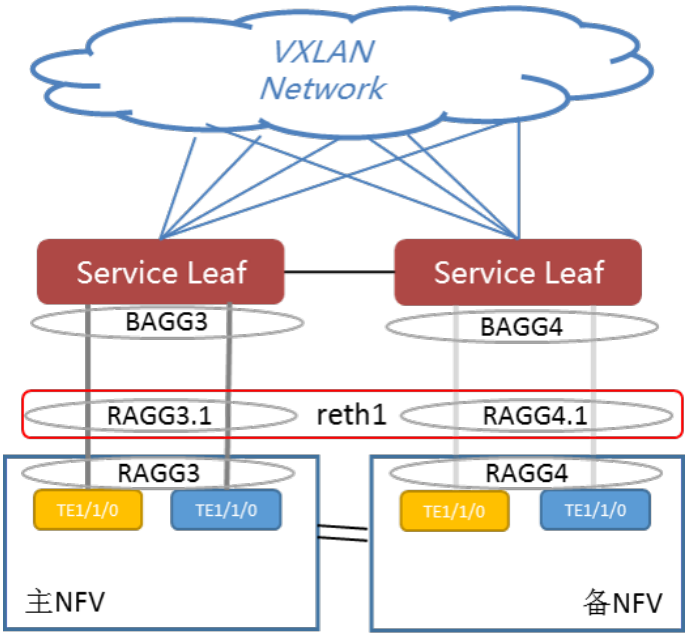
静态路由依赖下一跳ARP生效典型配置及应用场景举例

ARP 静态路由 信宁 2018-03-21 发表

静态路由的track通常通过探测下一跳IP是否可达来决定是否生效。在某些场景下，可以配置静态路由依赖下一跳接口ARP来替代track的配置，既能简化配置，又可以提高敏感性，多用于HA场景。

如下图，两个VSR堆叠，每台VSR上联一台Service Leaf。多租户场景下，VSR上创建为每个租户创建两个子接口，将这两个子接口加入到一个冗余口中，冗余口绑定租户的VRF。
两台Service Leaf上都需要配置静态路由，下一跳指向VSR上对应的冗余口地址。要实现正常状态下，访问VSR的流量都会通过Service Leaf1来到VSR的主slot；当主slot故障时，流量都会通过Service Leaf2来到备slot。





【Service Leaf的有关配置】

```
#vpn配置
ip vpn-instance vpna
 route-distinguisher 1:2211111
 description SDN_VRF_6317e6c9-ef55-42fe-bf5e-4f8efb38c287
 #
 address-family ipv4
  vpn-target 0:2211111 1:2211111 import-extcommunity
  vpn-target 1:2211111 export-extcommunity
 #
 address-family evpn
  vpn-target 0:2211111 1:2211111 import-extcommunity
  vpn-target 1:2211111 export-extcommunity
```

#VSI配置
vsi SDN_VSI_2211119
 gateway vsi-interface 11119
 statistics enable
 vxlan 2211119
 evpn encapsulation vxlan
  mac-advertising disable
  arp mac-learning disable
  route-distinguisher auto
  vpn-target auto export-extcommunity
  vpn-target auto import-extcommunity
#L2VNI配置
interface Vsi-interface11119
 ip binding vpn-instance   vpna
 ip address 121.1.1.41 255.255.255.248 sub
 mac-address 0056-5656-5656
 local-proxy-arp enable
 arp route-direct advertise -------开启ARP直连路由通告
 distributed-gateway local
#AC口配置
interface Bridge-Aggregation3
 port link-type trunk
undo port trunk permit vlan 1
 port trunk permit 2 to 500
 port trunk pvid vlan 2
 link-aggregation mode dynamic
 stp edged-port
#
service-instance 201
  encapsulation s-vid 201
  xconnect vsi SDN_VSI_2211119
#
bgp 65203 instance SDN_INSTANCE_BGP
 #
 ip vpn-instance vpna
  #
  address-family ipv4 unicast
   balance 4
   import-route static---引入静态路由
#
ip route-static vpn-instance vpna 104.78.0.0 16 121.1.1.42 recursive-lookup host-route----------
-指定静态路由只能迭代到直连主机路由
【VSR的有关配置】
#冗余口配置
interface Reth211
 ip binding vpn-instance 30_mgtgw_1
 ip address 121.1.1.42 255.255.255.248
 member interface Route-Aggregation3.200 priority 100
 member interface Route-Aggregation4.200 priority 50
#路由子接口配置
interface Route-Aggregation3.200
 vlan-type dot1q vid 200
interface Route-Aggregation4.200
 vlan-type dot1q vid 2010

VSR部分也可以为其他设备，例如防火墙，LB等
配置关键点在于静态路由配置时添加recursive-lookup参数，并在对应的接口下使能ARP直连路由通告