

问题描述

用户配置OpenFlow当业务vlan和带内管理vlan分离时，激活OpenFlow实例会有如下报错：

```
#
openflow instance 1
default table-miss permit
permit-port-type member-port
in-band management vlan 4092
classification vlan 4094
data-plane enable
controller 2 address ip 172.14.0.11
```

```
[H3C-of-inst-1]active instance
```

The in-band management VLANs must be a subset of the VLANs associated with current OpenFlow instance.

提示：带内管理VLAN必须是OpenFlow实例对应的VLAN的子集。

解决方法

遇到这种情况时，因为 classification vlan后无法配置多个vlan，所以就需要使用vlan掩码去同时匹配业务Vlan和带内管理Vlan。

就用户遇到的问题进行举例说明vlan掩码，什么样的掩码才能即匹配vlan 4092又能匹配vlan 4094呢？

```
openflow instance 1
default table-miss permit
permit-port-type member-port
in-band management vlan 4092
classification vlan 4094
```

第一步将Vlan编号改为二进制，我们发现这两个vlan中倒数第二位发生了变化，**按照0变1不变的原则**，推算出掩码应该是：4093

```
4092: 111111111100
4094: 111111111110
掩码: 111111111101 (4093)
```

验证：

```
[S5560-of-inst-1]display openflow instance 1
Instance 1 information:
```

Configuration information:

Description :--

Active status : Inactive

Inactive configuration:

Classification: VLAN, total VLANs(2)

4092, 4094

同理我们可以推算，如果用户带内管理vlan为99，业务vlan有199、299、399那么掩码应该如何计算呢？

```
99: 1100011
199: 11000111
299: 100101011
399: 110001111
掩码: 000010011 (19)
```

验证：（因为是不连续vlan所以无法精确匹配）

```
[S5560-of-inst-1]display openflow instance 1
Instance 1 information:
```

Configuration information:

Description :--

Active status : Inactive

Inactive configuration:

Classification: VLAN, total VLANs(512)

3, 7, 11, 15, 35, 39, 43, 47, 67, 71, 75, 79, **99**, 103, 107, 111, 131, 135
, 139, 143, 163, 167, 171, 175, 195, **199**, 203, 207, 227, 231, 235, 239, 259
, 263, 267, 271, 291, 295, **299**, 303, 323, 327, 331, 335, 355, 359, 363, 367
, 387, 391, 395, **399**, 419, 423, 427, 431, 451, 455, 459, 463, 483, 487, 491
, 495, 515, 519, 523, 527, 547, 551, 555, 559, 579, 583, 587, 591, 611, 615
, 619, 623, 643, 647, 651, 655, 675, 679, 683, 687, 707, 711, 715, 719, 739
, 743, 747, 751, 771, 775, 779, 783, 803, 807, 811, 815, 835, 839, 843, 847
, 867, 871, 875, 879, 899, 903, 907, 911, 931, 935, 939, 943, 963, 967, 971
, 975, 995, 999, 1003, 1007, 1027, 1031, 1035, 1039, 1059, 1063, 1067, 1071