

# 【vmware】批量修改3PAR/Primera/ALLetra9000的卷多路径策略为round robin

主机相关 吴致财 2023-05-10 发表

## 组网及说明

3PAR/Primera/ALLetra9000的卷在vmware上如何修改多路径的策略为round robin

## 配置步骤

1、如果卷已经映射的情况下，请使用下面的命令修改为轮循：

1)修改为轮循的方式

```
for i in `esxcli storage nmp device list | grep '^naa.60002ac'`; do esxcli storage nmp device set --device $i --psp VMW_PSP_RR; done
```

2)修改链路切换策略

选择路径的策略请按照IOPS为1（ESXi 6.x 到 ESXi 6.7 Update 1 (6.7U1)）

```
for i in `esxcfg-scsidevs -c |awk '{print $1}' | grep naa.60002ac`; do esxcli storage nmp psp roundrobin deviceconfig set --type=iops --iops=1 --device=$i; done
```

选择路径的策略为服务时间（从 ESXi 6.7 Update 2 (6.7U2) 到 ESXi 7.0 Update 1 (7.0U1)）

```
for i in `esxcfg-scsidevs -c |awk '{print $1}' | grep naa.60002ac`; do esxcli storage nmp psp roundrobin deviceconfig set --type=latency --device=$i; done; esxcli storage nmp psp roundrobin deviceconfig set --device=$i; done
```

ESXi 7.0 Update 2 (7.0U2) 及更高版本：建议使用从 ESXi 7.0U2 起纳入发行版的 3PARdata VV 装置的默认 SATP/PSP VMW\_SATP\_ALUA 规则，无需修改

2、如果卷没有映射的情况下，请使用下面的命令修改为默认的多路径策略：

对于 ESXi 6.x 到 ESXi 6.7 Update 1 (6.7U1)：

```
esxcli storage nmp satp rule add -s "VMW_SATP_ALUA" -P "VMW_PSP_RR" -O "iops=1" -c "tpgs_on" -V "3PARdata" -M "VV" -e "HPE Custom iSCSI/FC/FCoE ALUA Rule"
```

从 ESXi 6.7 Update 2 (6.7U2) 到 ESXi 7.0 Update 1 (7.0U1) 为轮循多路径 (VMW\_PSP\_RR) 创建包含基于延迟的子策略的自定义 SATP 规则：

```
esxcli storage nmp satp rule add -o "throttle_sll" -s "VMW_SATP_ALUA" -P "VMW_PSP_RR" -O "policy=latency" -c "tpgs_on" -V "3PARdata" -M "VV" -e "HPE Custom iSCSI/FC/FCoE ALUA Rule"
```

ESXi 7.0 Update 2 (7.0U2) 及更高版本：建议使用从 ESXi 7.0U2 起纳入发行版的 3PARdata VV 装置的默认 SATP/PSP VMW\_SATP\_ALUA 规则，它足以作为 HPE Alletra 9000 配置多路径

注意：

1、如果多路径策略设置失败，想要设置新的多路径设置，请先删除原有的多路径设置：

参考实例：

```
esxcli storage nmp satp rule remove -s "VMW_SATP_ALUA" -P "VMW_PSP_RR" -O "iops=1" -c "tpgs_on" -V "3PARdata" -M "VV" -e "HPE Custom iSCSI/FC/FCoE ALUA Rule"
```

2、查看生效的配置：

```
esxcli storage nmp device list | grep '^naa.60002ac' -A 8
```

```
[root@rac10901:~]# esxcli storage nmp device list | grep '^naa.60002ac' -A 8
naa.60002ac000000000000000000000000000000000000000000000000000000000000
Device Display Name: 3PARdata iSCSI Disk (naa.60002ac000000000000000000000000000000000000000000000000000000000000)
Storage Array Type: VMW_SATP_ALUA
Storage Array Type Device Config: (implicit_support=on; explicit_support=off; explicit_allow=on; alua_followover=on; action_OnRetryErrors=off; [TPG_id=1,TPG_state=40])
Path Selection Policy: VMW_PSP_RR
Path Selection Policy Device Config: (policy=latency,latencyEvalTime=180000,samplingCycle=16,curSamplingCycle=2,useAND=0; CurrentPath=vmba66:c1:t1:l100; NumIOSPending=0,latency=0)
Path Selection Policy Device Custom Config: policy=latency,iops=10000,bytes=10485760,samplingCycles=16,latencyEvalTime=180000,useAND=0;
Working Paths: vmba66:c0:t0:l100, vmba66:c1:t1:l100, vmba66:c0:t1:l100, vmba66:c1:t0:l100
Is USB: false
...
naa.60002ac000000000000000000000000000000000000000000000000000000000000
Device Display Name: 3PARdata iSCSI Disk (naa.60002ac000000000000000000000000000000000000000000000000000000000000)
Storage Array Type: VMW_SATP_ALUA
Storage Array Type Device Config: (implicit_support=on; explicit_support=off; explicit_allow=on; alua_followover=on; action_OnRetryErrors=off; [TPG_id=1,TPG_state=40])
Path Selection Policy: VMW_PSP_RR
Path Selection Policy Device Config: (policy=latency,latencyEvalTime=180000,samplingCycle=16,curSamplingCycle=16,useAND=0; CurrentPath=vmba66:c1:t1:l99; NumIOSPending=0,latency=0)
Path Selection Policy Device Custom Config: policy=latency,iops=10000,bytes=10485760,samplingCycles=16,latencyEvalTime=180000,useAND=0;
Working Paths: vmba66:c0:t0:l99, vmba66:c1:t0:l99, vmba66:c0:t1:l99, vmba66:c1:t1:l99
Is USB: false
```

配置关键点

无，具体的请参考附件P18-P19

附件下载: [HPE\\_sd00001344zh\\_cn\\_HPE Alletra 9000: VMware ESXi 实施指南.pdf](#)