



Alletra 6000存储 - Alletra 6000存储主机实施 FC连接Linux Server

主机相关

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组网及说明

Nimble Storage、Alletra 6000

配置步骤

▪ Infosight > HPE Alletra 6000, Nimble Storage > Resources > Validated Configuration Matrix, 确认FC连接时的兼容性要求

注意 兼容性列表不定期更新, 进行主机实施之前需要检查最新发布的兼容性列表说明。

如示例, 以下NimbleOS版本、AlletraOS版本与Windows Server 2019兼容, 如使用Qlogic 2740系列光纤卡, 驱动程序版本、固件版本要求如下

Validated Configuration Matrix

Host OS: RHEL 7.9, Initiator: QLogic 2740 Series, Driver version: 10.02.01.00.a14-k1, Firmware: 9.06.02, HPE Alletra, NimbleOS: 6.0.0.x

HOST OS	INITIATOR	DRIVER VERSION	FIRMWARE	HPE ALLETRA, NIMBLEOS	NOTES
RHEL 7.9	QLogic 2740 Series	10.02.01.00.a14-k1	9.06.02	6.0.0.x	7
RHEL 7.9	QLogic 2740 Series	10.01.00.22.07.9-k	9.03.00	5.3.x, 6.0.0.x	

Notes:

1. Upgrade device-mapper-multipath to device-mapper-multipath-0.4.9-80.0.1.el6.x86_64
2. Requires 5.12A12 Boot Code to support boot from SAN (boot code is not bundled with the firmware)
3. Boot from SAN not validated
4. Requires the use of an LVM (Logical Volume Manager) for Nimble volumes
5. Configuration has been validated with PowerPath v7.1.1, v7.2.0, & v7.2.1. Minimum NimbleOS for PowerPath configurations is 2.3.12
6. Configuration has been validated with AX NFV. Minimum NimbleOS for Boot from SAN using AX NFV is 3.2.0
7. Support for Direct Connections added in NimOS 4.2.x and later
8. Configuration has been validated with Oracle Solaris Cluster 4.3.0.24.0, 4.4.0.21.0 on x86/SPARC.

▪ 测试环境中, 服务器主机为RHEL7u9, 主机使用32Gb FC HBA HPE SN1600Q (QLogic 2740 Series Fibre Channel Adapters), 光纤卡Port1 WWPN为51:40:2e:c0:14:87:a3:78, 光纤卡Port2 WWPN为51:40:2e:c0:14:87:a3:7a。光纤卡驱动程序版本10.02.01.00.a14-k1, 光纤卡固件版本9.06.02, 符合上述兼容性要求。

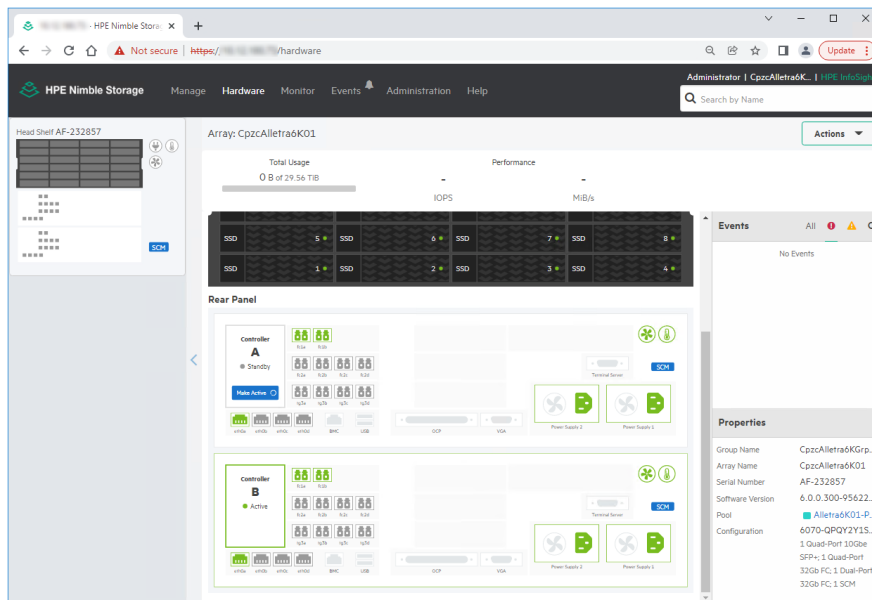
主机端已安装NLT工具。

```
root@cpzclab-rhel7:~# cat /etc/redhat-release
Red Hat Enterprise Linux Server release 7.9 (Maipo)
root@cpzclab-rhel7:~# ls /sys/class/fc_host
host14 host16
root@cpzclab-rhel7:~# cat /sys/class/fc_host/host14/port_name
0x51402ec01487a378
root@cpzclab-rhel7:~# cat /sys/class/fc_host/host16/port_name
0x51402ec01487a37a
root@cpzclab-rhel7:~# cat /sys/class/fc_host/host14/symbolic_name
SN1600Q FW:v9.06.02 DVR:v10.02.01.00.a14-k1
root@cpzclab-rhel7:~# nltadm --version
4.0.2.4372
root@cpzclab-rhel7:~# nltadm --status
Service Name      Service Status
-----
Connection-Manager  RUNNING
Config-Collector    RUNNING
root@cpzclab-rhel7:~# mpathconf
multipath is enabled
find_multipaths is disabled
user_friendly_names is enabled
dm_multipath module is loaded
multipathd is running
root@cpzclab-rhel7:~#
```

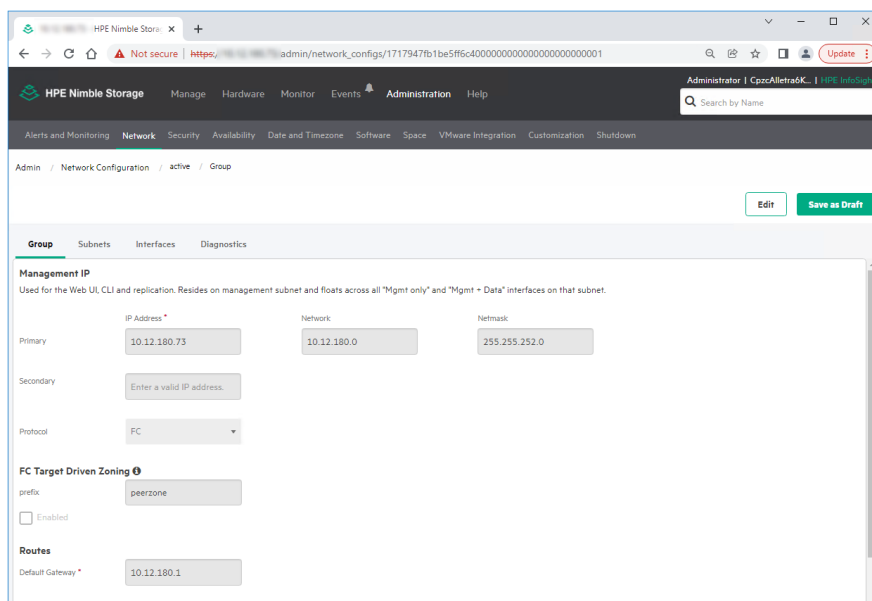
▪ 安装NLT工具会自动优化多路径配置。

```
root@cpzclab-rhel7~# cat /etc/multipath.conf
defaults {
    user_friendly_names yes
}
blacklist {
}
devices {
    device {
        product                "Server"
        fallback                immediate
        grouping_policy          group_by_prio
        no_path_retry            30
        dev_loss_tmo             infinity
        path_checker              "alua"
        fast_io_fail_tmo         5
        rr_min_io_rq             1
        vendor                   "Nimble"
        rr_weight                 uniform
        path_checker              tur
        prio                     "alua"
        path_selector             "service-time 0"
    }
}
```

- 存储端为Alletra 6070，NOS 6.0.0.0.300，控制器PCI Slot1安装32Gb FC HBA用于FC连接。存储端双控光纤端口fc1a与主机端光纤卡Port1至一路SAN Switch划ZONE连通，存储端双控光纤端口fc1b与主机端光纤卡Port2至另一路SAN Switch划ZONE连通。



- 主机协议为FC。



- 控制器光纤端口WWPN如下

