

diagnose issue: primary steps to diagnose network issues.

A) Network diagnose.

Basic network configuration checking.

- 1) All cables are at least of cat 5e or cat 6.
- 2) network switch should be of gigabyte capacity.
- 3) all NIC should be of gigabyte capacity (includes both server, and endpoints)
- 4) all switches are powered on.
- 5) following services should be running.

dnsmasq

tftpd-hpa

iscsitarget

Network performance check

- 1) NIC capacity can be checked by command "ethtool eth0"
- 2) network transfer rate can be check by starting server iperf using command...

iperf -s

iperf -c 192.168.100.20

NOTE: in above command "iperf -s" is used to start server iperf

iperf -c 192.168.100.20 is executing client to pull/push data to server

at 192.168.100.20

- 3) to get statistic on disk io "iostat -tx -t 5 /dev/sdb" command can be used on server.

NOTE: -tx is used for Display extended statistics

-t 5 is used to display output at interval of 5 second

/dev/sdb is the device to check io on.

- 4) To check network transfer for incoming and outgoing "nload" command can be used.

NOTE: approach to get network analysis data should be as follows.

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1) collect data when there is no load (only one endpoint is booting)

2) also collect data for shutdown endpoint.

3) check same thing when 3 endpoint are booting at a time.

Then do same for more number like 10, and 30 at same time.

B) Hardware check.

1) server should have nic with gigabyte capacity.

2) all switches, and cable should also support gigabyte transfer rate.

3) to get faster boot and performance SSD is used, with caching enabled/configured on server

Following is the script to check configured status of flash cach

```
bash /opt/infracc/managed-host/bin/infracc-flashcache-manage.sh status
```

4) Some times it is also necessary to check I/O speed on SSD

```
dd if=/dev/zero of=/dev/sdb1 bs=8M count=1280
```

above command write 10GB of data on ssd (assuming that /dev/sdb1 is partition on SSD)

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Author: Coriolis Technologies

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