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Troubleshooting NetApp Storage in the TR environment

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I think there's a problem with storage…

- Where to begin – narrow the focus
  - Storage controllers, vfilers, network, DFM/OM, NMC, servers, VMware, etc.
  - Who/What is affected
    - One system
    - One volume
    - Entire storage cluster
    - One business unit (server)
    - Many business units (servers)
  - Data needed
    - Hosting storage system, vfiler, volume, qtree, nfs export, cifs share, etc.
    - At least one affected server
    - The exact error message
    - Time error occurred (and duration if ended)

Needle in a haystack

- Get basic data about the storage controller
  - Current performance
    - Sysstat, current running SV/SM, NMC/PA, See Mike Arndt's "how-to"
  - Current Config
    - Sysconfig, "My AutoSupport"
  - Get/find the current logs
    - UNIX/Linux
      - /filers/<hostname> on each DFM server
        - i.e., /filers/eg-nas-a01
      - This is /vol/vol0/etc
      - Use a text reader such as less or more, do not use vi.
    - Windows
      - Mount drive to \\<hostname>\c$
        - Connect as <hostname>\administrator
        - Password
        - If you get an error that credentials are already in use, open "Command Prompt" and run "net use \\<hostname /DELETE"
        - Try mounting again
      - This is /vol/vol0/etc
      - Use a text reader such as TextPad
    - Messages logs
    - log directory
      - Snapmirror
      - Audit
      - CIFS auditlogs
      - evt logs
      - ems logs
- Look up error on http://now.netapp.com
- If data is not available and is affecting work call 888-4-NETAPP (888-463-8277)

Still finding needles

- Get basic data from DFM/OM/PA
  - /dfm/dfminst/logs
  - Current logs end in .log
  - Most useful are:
    - dfmserver.log
    - dfmcmd.log
    - alert.log
    - conformance.log

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How Do I …

- Vfiler
  - Vsip vfiler / default route
  - Netmask
  - Ipspace
  - Logs
- Network
  - Jumbo frames
  - Gateway
  - Vlan
  - VIF
  - Common error messages

How Do I…

- DFM
  - Typical errors
  - Dfmdc
  - PA (space requirement, reduced monitoring)
  - logs
- NFS/CIFS
  - Kerberos (time sync)
  - Root volume full
  - AD connectivity
  - NFS name cache
- Provisioning
  - Where to look

Commands used

rlm	route	vfiler	sysconfig	vif
vlan	ifconfig	netstat	secureadmin	date
options	exportfs	cifs	traceroute	help/?
sysstat	ipspace	cf	aggr show_space	ifstat
dfm	dfpm	less / more	vi	man

Q & A

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