

Boot Error on Shadowed Sys Disk.

Source: <http://unix.derkeiler.com/Newsgroups/comp.os.vms/2006-02/msg00078.html>

- *From:* dave.baxter@xxxxxxxxxxxxxxxxxxxx
 - *Date:* 2 Feb 2006 07:16:42 -0800
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I currently run a 3-node Prod Cluster (2 x GS1280 (M16), and 1 ES40). I am running OpenVMS 7.3-2, fully patched (as far as my vendor has certified), TCPIP Services V5.4, ECO 4. The storage subsystems are EVA5000, and the system disk is in the SAN. I have been running in this configuration for over 18 months without any issues.

On Tuesday last I was trying to replace one of the GS1280(M16)'s with a new GS1280(M32). My planned procedure was

1. Shutdown old M16
2. Give all of the old connections to the new M32 (Interconnect, SAN, Network).
3. Boot the new M32 from the same root as was used by the old M16. i.e., the new system will take over the Name, DECNet address, IP address, in other words "the complete identity" of the old system.

Note: The additional SMP licences etc. were pre-loaded. Nodes 2 and 3 remained up and clustered the whole time.

Events.

Shutdown old M16 OK.

Connections transferred OK

M32 booted OK

Logged in, reconfigured NIC for TCPIP and DECNet, (different Device and Interface names on new system)

Carried out several boots without issue.

Problem:

On about the 5th or 6th boot, the new system joined the cluster ok, but then hung. Checking the systems which were up, I noticed that the system disk was in "Mount Verify". Eventually the booting system "timed out (?)" and bugchecked, giving a message, the gist of which was "Unable to boot from shadowed system disk". After the system bugchecked, the other systems showed the system disk as back to normal. (Because the new system is 96GB mem, and because of time constraints, I couldn't wait for a crash dump to write so I Cntrl_P'd out of it). I INIT'ed the system and tried to boot again, with the same results, Halted, INIT'ed again, and tried a third time, with the same result.

At this point, I decided that I didn't have time for further trouble

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shooting and decided to rollback. I was concerned about this because the problem looked to be software, particularly, a problem with this specific root on the system pack. I was concerned that the old M16 might also fail to boot.

The old system booted up without any problems however. (to my immense relief).

Can anyone shed any light on what might have caused this series of events.

A possible answer occurred to me this morning while driving in to work. It is this;

1. Because of other work which was going on, I had (early in the PM window) reduced all of my shadowsets to a single member (one of the EVA's was going to be disconnected from the SAN to be worked on.) THIS INCLUDED one unit on THE SYSTEM DISK.
2. At some point in the proceedings, the EVA was brought back into the SAN, and at this point I ran a script on Node 3 to remount all of the missing units and resync (all using mini-copy except the system disk). The full copy on the system disk would have taken ~30mins.

I cannot remember the specific time that I ran the REMOUNT script, or if it coincided with my getting these problems. HOWEVER:

IS IT POSSIBLE THAT MY PROBLEM WAS CAUSED BY THE SYSTEM DISK SHADOWCOPYING.

This might explain why I had no problems with the old hardware, vis. by the time I swapped all of the connections back, the shadow-copy had finished.

I would appreciate any comments on this issue

Thanks, Dave.

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