

DragonFlyBSD - Bug #1947

GA-880GM-UD2H (rev. 1.3) AHCI fails to detect disks at the end of the RAID controller

12/31/2010 02:46 PM - eocallaghan

Status:	New	Start date:	
Priority:	Low	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
Attached is the verbose boot of the machine when two 1TB disks are in a RAID 1 behind the controller. If the AMD RAID controller is set to AHCI mode the disks show fine.			
* Background:			
Board: http://www.gigabyte.com/products/product-page.aspx?pid=3475#sp			
Southbridge chipset data sheet: http://www.google.com/url?sa=t&source=web&cd=1&ved=0CBIQFjAA&url=http%3A%2F%2Fdeveloper.amd.com%2Fassets%2F45215_sb710_ds_pub_1.25.pdf&rct=j&q=AMD%20SB710%20raid%20controller&ei=6-EdTb3dDZHwwPp9-XwDQ&usg=AFQjCNH7gThMfcsRKvLicnmwBIJR1ISbRQ&cad=rja			

History

#1 - 12/31/2010 02:56 PM - eocallaghan

All the needed data sheets and stuff should be here:

http://www.coreboot.org/Datasheets#AMD_SB700.2FSB710.2FSB750

From:

<http://lists.freebsd.org/pipermail/freebsd-current/2009-July/009107.html>
<http://svn.freebsd.org/viewvc/base?view=revision&revision=191568>

#2 - 12/31/2010 03:58 PM - dillon

:New submission from Edward O'Callaghan <eocallaghan@auroraux.org>:

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:Attached is the verbose boot of the machine when two 1TB disks are in a RAID 1

:behind the controller. If the AMD RAID controller is set to AHCI mode the disks

:show fine.

:D 1

:show fine.

Mmm. I'm not aware of any hardware AMD RAID controller. Are you sure this isn't some sort of BIOS soft-raid feature? If the BIOS is taking over the AHCI controller the OS won't have any visibility into it.

-Matt

#3 - 12/31/2010 10:57 PM - eocallaghan

Hi Matt,

Well I am not sure, hence providing all the resource material for someone more well versed in the AHCI spec. I should not that the hardware does not belong to me and that this is a smb server I setup for a friend. I do however, have SSH into this machine.

Your thoughts?

Cheers,
Edward.

#4 - 01/01/2011 10:07 AM - ftigeot

On Fri, Dec 31, 2010 at 10:57:10PM +0000, Edward O'Callaghan (via DragonFly issue tracker) wrote:

>
> Edward O'Callaghan <eocallaghan@auroraux.org> added the comment:
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> Well I am not sure, hence providing all the resource materiel for someone more
> well versed in the AHCI spec. I should not that the hardware does not belong to
> me and that this is a smb server I setup for a friend. I do however, have SSH
> into this machine.

The GA-880GM-UD2H is a desktop board; it has no integrated RAID controller.

The advertised RAID feature is a BIOS hack which allows some versions of Microsoft Windows to use software RAID volumes without too much pain.

AFAIK, FreeBSD had some support to understand the on-disk format of some of these pseudo-raid volumes :

<http://www.unix.com/man-page/FreeBSD/4/ataraid/>

#5 - 01/02/2011 06:08 AM - eocallaghan

Ah ok,

That explains that then! I'll just get HAMMER to mirror the disks, like:

http://www.dragonflybsd.org/docs/how_to_implement_hammer_pseudo_file_system_40_pfs_41_slave_mirroring_from_pfs_master/

It would be nice if HAMMER had a single command line option like ZFS such that it can mirror disks (RAID1) much like how HAMMER can easily strip across disks (RAID0). That would be really handy! Would it be hard to implement currently and if not too hard should I then open a RFE for it?

I'll leave this ticket open as a RFE to bring in ataraid from FreeBSD.

Priority: bug->wish.

Cheers,
Edward.

Files

dmesg.verbose.RAID	36.5 KB	12/31/2010	eocallaghan
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