

Re: FreeBSD WOL sis on

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/hackers/2007-11/msg00269.html>

- *From:* Stefan Sperling <stsp@xxxxxxxxx>
 - *Date:* Sun, 25 Nov 2007 18:42:05 +0100
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Hey David,

(I'm Cc'ing this reply to hackers@ with David's consent.)

On Sat, Nov 24, 2007 at 11:31:24PM -0800, David Leslie wrote:

Have an Intel ITX size board (D201GLY2) with a SiS 900 NIC, which supports WOL and has a WOL-enabled FreeBSD driver, but does not actually wake after powering down (ACPI S5) from FreeBSD. Have verified that WOL works using ethtool in Linux.

Am not a BSD user, but am attracted to the FreeNAS project which has recently integrated your WOL patch (hopefully a recent version).

The sis driver supports at least two different types of cards.

What does dmesg print for your card? I have only one type of NIC the sis driver supports and have only implemented support for this one:

```
sis0: <NatSemi DP8381[56] 10/100BaseTX> port 0xac00-0xacff mem
0xdb001000-0xdb00
sis0: Silicon Revision: DP83816A
```

From userspace it appears ready to set the NIC to wake (i.e. ifconfig returns "will wake on: magic"), but the system ignores magic packets and does not wake from FreeBSD.

If the card type isn't a DP83815 or DP83816, this is a bug. The driver should not let you configure cards for WOL it has no support for.

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Have verified that there is no reconfiguration of the adapter as part of the FreeNAS shutdown scripts. I see that your patch integrates changes to this driver, so maybe you might have seen the issue on other platforms? Any ideas where to look as a next step—would appear to be something in if_sis that is not working on this board?

There are many things that can go wrong with WOL.

Here's a quick checklist (the first three are probably not causing your problem because you've verified that WOL works with Linux):

Is the WOL cable plugged in properly (if needed)?

Are BIOS WOL settings OK?

Is ACPI enabled (in BIOS and OS)?

Have you used "shutdown -p" to shut down the box? Using "shutdown -h" or "halt" and then turning the power off might not work (at least I've never tried this...)

Does the card enter D3 sleep mode properly after the box shuts down, i.e. does a NIC LED stay on after shutdown?

Do "wake" packets (e.g. magic packets) actually reach the box? To find out, I do:
while true; do wol -h 10.42.42.255 <mac addr>; sleep 1; done
and then if the box doesn't wake up I look at the NIC LEDS to check for periodic blinking of the tx/rx LED.
Adjust the broadcast IP address to your network of course.

Hope this helps,

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stefan

<http://stsp.name> PGP Key: 0xF59D25F0

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