

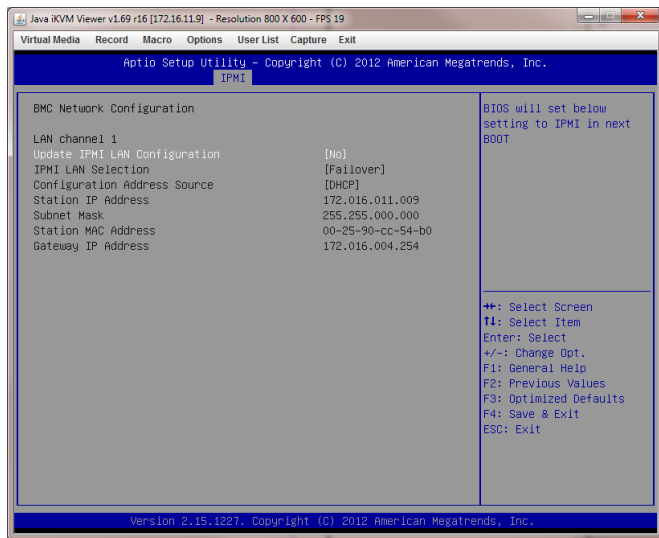
How to flash an onboard or PCI-e LSI HBA from IR to IT mode for a napp-it appliance

(c) napp-it.org 20 Mar 2018, CC-BY-SA see <http://creativecommons.org/licenses/by-sa/2.0>

1. Setup IPMI (Only needed if you want to flash via IPMI)

- connect IPMI Connector on your mainboard to your LAN (DHCP enabled)

Enter Bios and check or set IP adress of IPMI



You can now connect to your console via browser:
<http://172.16.11.9> (this example config, use your ip)

default admin account:

user: ADMIN

pass: ADMIN

You have now a console/keyboard redirection to you browser. You can manage the server, reset, power on or use virtual medias for setup

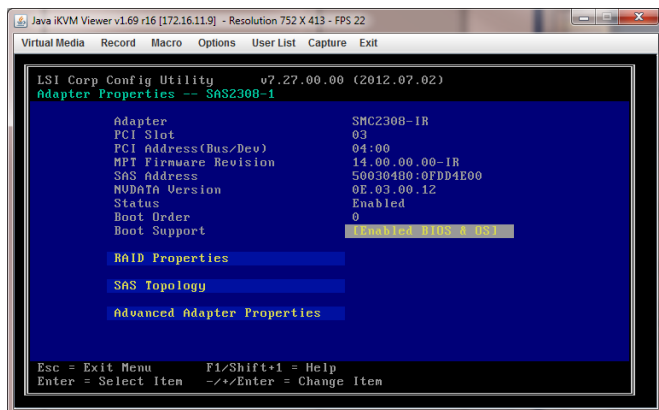
2. reflash SAS controller from IR raid 1/10 mode to IT mode without raid.

- download IT firmware from <ftp://ftp.supermicro.com/driver/SAS/LSI/3008/Firmware/IT/>

- extract file and copy the files from the EFI folder to an USB stick

- reboot your system and enter CTRL-C to enter your SAS boot firmware

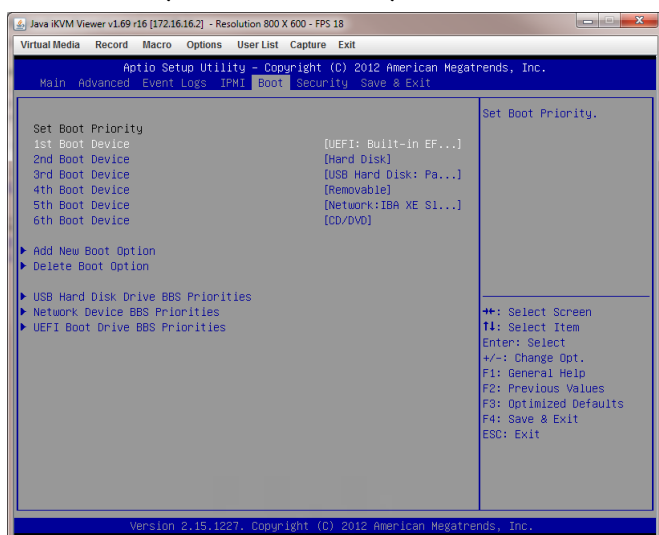
- select your controller ex SMC 2308-IR and press enter



write down SAS address of your SAS controller ex:
SAS address: 50030460:0FDD4E00

(you need the adress info later after flashing)

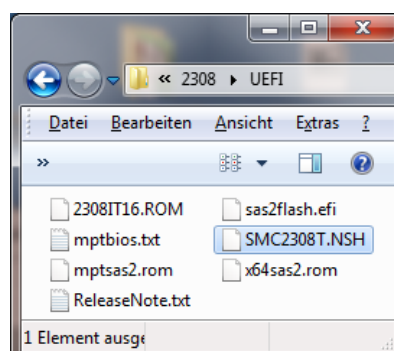
3. Boot into your EFI shell (If you have a bootmenu, select EFI shell)



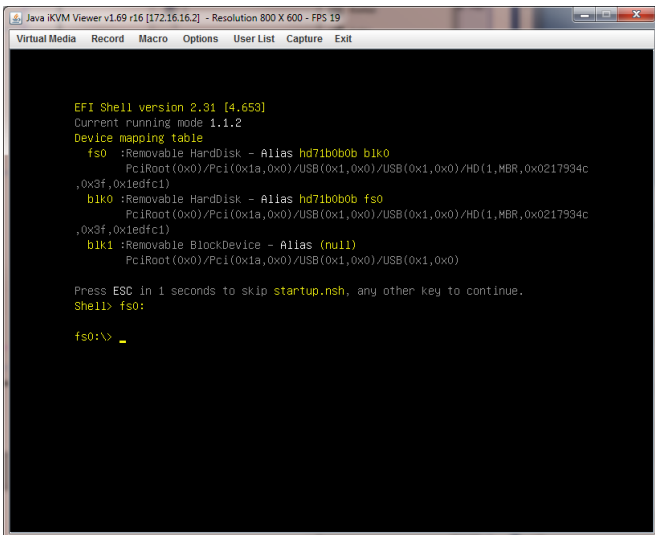
Enter Bios and setup boot order

- set UEFI at first place, save settings, reboot

- You need the these files in the USB root directory



5. execute Update script (This method works with onboard or PCIe HBA devices)



```
Virtual Media Record Macro Options UserList Capture Exit

EFI Shell version 2.31 [4,653]
Current running mode 1.1.2
Device mapping table
fs0 :Removable HardDisk - Alias hd71b0b0b b1k0
      PciRoot(0x0)/Pci(0x1a,0x0)/USB(0x1,0x0)/HD(1,MBR,0x0217934c
,0x3f,0x1edfc1)
b1k0 :Removable HardDisk - Alias hd71b0b0b fs0
      PciRoot(0x0)/Pci(0x1a,0x0)/USB(0x1,0x0)/HD(1,MBR,0x0217934c
,0x3f,0x1edfc1)
b1k1 :Removable BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x1a,0x0)/USB(0x1,0x0)/USB(0x1,0x0)

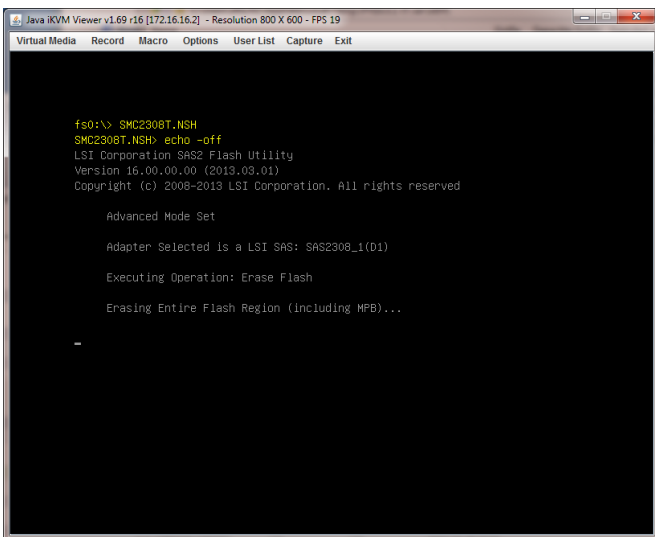
Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:
fs0:\>
```

After reboot, enter fs0: to change to USB stick
Enter fs:

result:
fs0:\>

Enter dir to list all files

Start your setupscript (must be in usb root) ex:
fs0:\>SMC2308T.NSH



```
Virtual Media Record Macro Options UserList Capture Exit

fs0:\> SMC2308T.NSH
SMC2308T.NSH> echo -off
LSI Corporation SAS2 Flash Utility
Version 16.00.00.00 (2013.03.01)
Copyright (c) 2008-2013 LSI Corporation. All rights reserved

Advanced Mode Set

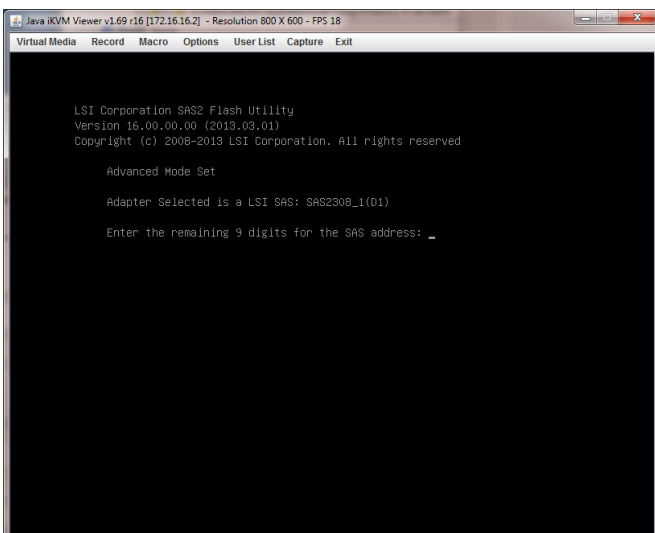
Adapter Selected is a LSI SAS: SAS2308_1(D1)

Executing Operation: Erase Flash

Erasing Entire Flash Region (Including MPB)...

-
```

Script informs about needed actions
Just confirm



```
Virtual Media Record Macro Options UserList Capture Exit

LSI Corporation SAS2 Flash Utility
Version 16.00.00.00 (2013.03.01)
Copyright (c) 2008-2013 LSI Corporation. All rights reserved

Advanced Mode Set

Adapter Selected is a LSI SAS: SAS2308_1(D1)

Enter the remaining 9 digits for the SAS address: _
```

When update is almost completed, you need to enter
the last 9 digits of your SAS address (from 2.)

If SAS address is 50030480:0FDD4E00, enter:
00FDD4E00 to finish setup.

enter exit to reboot

On next boot, enter LSI firmware (CTRL-C) and check
if you have IT firmware with same SAS address

thats all, have fun, reboot and check

info:

If you use more than one controller, it is suggested that all are on the same firmware.

Some controllers, example the IBM 1015 that is compatible to an LSI 9211 must be erased prior a reflash.

This can be done with a DOS bootable USB stick and the megarec tool, see

<http://www.servethehome.com/ibm-serveraid-m1015-part-4/>

