Linux image deployment from SCSI server to SATA server
ABSTRACT

This document describes the process to create and deploy system images from HP Proliant equipped with a RAID SCSI to HP Proliant equipped with SATA with mondo rescue software.
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General remarks

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Version history

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<td>1.0</td>
<td>06.07.2005</td>
<td>First draft / FX. Horel</td>
</tr>
<tr>
<td>2.01</td>
<td>05.10.2005</td>
<td>Review, add mkinitrd process / FX. Horel</td>
</tr>
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<td>07.10.05</td>
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References

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**Prerequisites**

**Requirements**

The following steps must be done on the source system (HP Proliant with a SCSI Raid controller – cciss driver):

- Mondo rescue must be installed (mondo + mindi RPMS/debs) (Latest version available at [http://mondorescue.berlios.de](http://mondorescue.berlios.de))
- Add the following line to `/etc/modules.conf` file (our target system uses a SATA controller managed by the `ata_piix` module):
  ```bash
  # echo 'alias scsi_hostadapter ata_piix' >> /etc/modules.conf
  ```
- Stop all the processes on the server for whose the online backup could cause problems (for example: Databases)

**Backup the source server**

Enter the following lines in a new file called `test-mondo` (with execute rights):

```bash
# cat > /usr/local/bin/mondo-bck << EOF
# Our data are on a separated XFS FS
umount -at xfs
# You need room under /usr/mondo
rm -fr /usr/mondo/*
mkdir -p /usr/mondo/images /usr/mondo/tmp /usr/mondo/scratch
/usr/sbin/mondoarchive -O -i -H -N -g -d /usr/mondo/images -T /usr/mondo/tmp
-S /usr/mondo/scratch -E /video -s 4300m
EOF
```

Ensure that you’ll have enough space to store the mondo images and temporary files generated and launch the script:

```bash
# /usr/local/bin/mondo-bck
```

Then, when mondo has finished the backup, burn the images on DVD (in the script above, the image size is configured for 4.3GB).

**Deployment on SATA server**

Insert the first DVD created by mondo rescue and start the server. It will boot automatically on the `linux image` (-H option of `mondoarchive`).

After few minutes, the software detects that the SCSI hardware is not present and that it can not mount the correct devices. It proposes to switch to interactive mode (answer Yes).
Edit the mountlist and change the devices to reflect the current hardware (/dev/sda or /dev/sdb for the SATA controller). In this example, the source disks were 36Gb and the target ones were 80Gb.
Press OK and answer Yes twice. It will repartitioned the disks and format them.

Mondo rescue will ask you for restoring the data on the new system. Answer Yes. At the end, it asks you to initialize the boot loader:

Answer Yes.
Then you'll have to change the mountlist. Answer again Yes:

![Image of Mondo RescuE prompting to change the mountlist]

Change the mountlist and point it to /dev/sda (in case you have restored the image on /dev/sda):

![Image of Mondo RescuE prompting to select the device]

Then it will ask to edit the /etc/fstab and /etc/grub.conf files and reboot the server.

For fstab, you should change the file to reflect the change of hard drive reference (in our case from /dev/cciss/c0d0p? To /dev/sda?) as in the lines below:

```bash
ch 2.9.8+ more fstab
/dev/sda1
/dev/sda2
none
none
none
none
/dev/sda3
/srv/ramdisk
/srv/hdb1
/srv/hdb2
/dev/floppy

# SATA
/dev/sda

# SCSI
/dev/cciss/c0d0p5

ext3 defaults 0 1
ext3 defaults 0 1
devpts gid=5, mode=620 0 0
tmpfs defaults 0 0
swap defaults 0 0
/ swap defaults 0 0

# GRUB

GRUB 2.0

default 0
timeout 12

EOF
```

For /etc/grub.conf, you'll have to change it the same way to obtain:
The final step is to recreate your initrd so that it contains the right drivers needed for your new configuration (the current one references cciss):

Launch the following commands:

```bash
# mkdir -p /mnt/sysimage
# mount /dev/sda1 /mnt/sysimage
# mount /dev/sda2 /mnt/sysimage/boot # in case you have as us a separated /boot
# chroot /mnt/sysimage
# mkinitrd /boot/initrd-2.4.21-27.ELsmmp.img 2.4.21-27.ELsmmp
# mkinitrd /boot/initrd-2.4.21-27.EL.img 2.4.21-27.EL
# exit
```

After that, you should be able to reboot your system successfully with the new hardware configuration and the previous content restored by mondo.