

Modify standard farm

[Debian TS-WXL](#)

Thinking of the future

- Erase the root password
- Enable telnet • Enable

serial console input

Now, how to rewrite RAID1 system?

Connect disk 2 to LS-QL

Remove Disk 2 from TS-WXL and connect to LS-QL which has been made Debian by USB.
Simply stab it in the tray and use it as an external disk.

```
qube:~# tail -f /var/log/messages
:
:
Feb 27 07:10:19 qube kernel: usb 2-1: new high speed USB device using ehci_marvell and address 2
Feb 27 07:10:20 qube kernel: usb 2-1: configuration #1 chosen from 1 choice
Feb 27 07:10:20 qube kernel: scsi2 : SCSI emulation for USB Mass Storage devices
Feb 27 07:10:25 qube kernel: scsi 2:0:0:0: Direct-Access    ViPoWER  VP-89118(SD1)    2.10 PQ: 0 ANSI: 4
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: [sdb] Write Protect is off
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: [sdb] Write Protect is off
Feb 27 07:10:25 qube kernel: sdb: sdb1 sdb2 sdb3 sdb4 sdb5 sdb6
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: [sdb] Attached SCSI disk
Feb 27 07:10:25 qube kernel: sd 2:0:0:0: Attached scsi generic sg1 type 0
```

Mount

```
qube:~# mkdir /tmp/root
qube:~# mount -t ext3 /dev/sdb2 /tmp/root
qube:~# ls /tmp/root
bin boot dev etc home initrd lib lost+found mnt modules proc root sbin sys tmp usr var www
qube:~#
```

expunge root password

```
qube:~# cd /tmp/root/etc/
qube:/tmp/root/etc# mv shadow shadow.orig
qube:/tmp/root/etc# sed -e 's/^root:[^:]*:/root::/' shadow.orig > shadow
qube:/tmp/root/etc# grep root shadow
root::11009:0:99999:7:::
qube:/tmp/root/etc# chmod 600 shadow
qube:/tmp/root/etc# ls -l shadow*
-rw----- 1 root root 344 Feb 27 07:12 shadow
-rw-r--r-- 1 root root 370 Jan 27 2009 shadow.orig
qube:/tmp/root/etc#
```

Enable telnet

```
qube:/tmp/root/etc# tail init.d/rcS
/usr/local/bin/share_delete.sh &
exec_sh pmcd.sh
```

```
VER=`grep "^VERSION=" ${RELEASE_FILE} |sed -e "s%.*=%%"`
SUB_VER=`grep "^SUBVERSION=" ${RELEASE_FILE} |sed -e "s%.*=%%"`
BUILDDATE=`grep "^BUILDDATE=" ${RELEASE_FILE} |sed -e "s%.*=%%"`
logger -t ${LOGTAG} -p ${LOGFACILITY} "${VER}-${SUB_VER} ${BUILDDATE} started!"
```

```
echo "${VER}-${SUB_VER} ${BUILDDATE} started!" > /dev/console

/etc/init.d/wol.sh start wol_ready_check
qube:/tmp/root/etc# echo >> init.d/rcS
qube:/tmp/root/etc# ls -l ../usr/sbin/telnetd
lrwxrwxrwx 1 root root 17 Feb 27 06:52 ../usr/sbin/telnetd -> ../../bin/busybox
qube:/tmp/root/etc# echo /usr/sbin/telnetd >> init.d/rcS
qube:/tmp/root/etc#
```

Enable serial console input

```
qube:/tmp/root/etc# echo /usr/local/sbin/miconapl -a serialmode_console >> init.d/rcS
qube:/tmp/root/etc# tail init.d/rcS
VER=`grep "^VERSION=" ${RELEASE_FILE} |sed -e "s%.*=%%"`
SUB_VER=`grep "^SUBVERSION=" ${RELEASE_FILE} |sed -e "s%.* %%"`
BUILDDATE=`grep "^BUILDDATE=" ${RELEASE_FILE} |sed -e "s%.*=%%"`
logger -t ${LOGTAG} -p ${LOGFACILITY} "${VER}-${SUB_VER} ${BUILDDATE} started!"
echo "${VER}-${SUB_VER} ${BUILDDATE} started!" > /dev/console
```

```
/etc/init.d/wol.sh start wol_ready_check
```

```
/usr/sbin/telnetd
/usr/local/sbin/miconapl -a serialmode_console
qube:/tmp/root/etc#
```

Unmount

```
qube:/tmp/root/etc# cd /
qube:/# umount /tmp/root
qube:/#
```

Launch TS-WXL

Pull out HDD1,
return only HDD2,
and start TS-WXL.

The LCD and the ERROR LED are red and the
DISK1 LED is blinking.

Verification

Check that you can log in as root from telnet / serial console.

First, telnet

```
yasunari @ sil: ~ $ telnet 192.168.2.70
Trying 192.168.2.70...
Connected to 192.168.2.70.
Escape character is '^]'.
```

BUFFALO INC. TeraStation series

```
TS-WXL3B3 login: root
No mail.
root@TS-WXL3B3:~#
```

GJ!

Next, the serial console

```
BUFFALO INC. TeraStation series
TS-WXL3B3 login: 3 USB_DEVICE=none
4 USB_DEVICE=none
5 USB_DEVICE=none
KERNELMon (PSW_on)
Shutting down pwrmgr:
```

```
BUFFALO INC. TeraStation series
TS-WXL3B3 login: root
```

```
TS-WXL3B3 login: root
Last login: Sat Feb 27 07:28:22 +0900 2010 on pts/0.
```

```
No mail.
root@TS-WXL3B3:~#
```

OK.

Stab HDD1

It should be stuck because it is hot swappable.

```
root@TS-WXL3B3:~# tail -f /var/log/messages
:
:
```

```
KERNELMOn (SATA 0 plugged)
Feb 27 07:29:32 TS-WXL3B3 kernelmon: cmd=SATA 0 plugged
```

Nothing happens.

Re-recognize disk 1

The disk 1 which has been "removed" in "system" → "disk" on the management screen is "re-recognized".

```
Feb 27 07:30:08 TS-WXL3B3 linkstation: log saved to NAND(cron)
Core Driver (ERROR) 0 0: Edma Error Reg 0x10
start to wait 1000 mili sec
wait finished.
Feb 27 07:31:57 TS-WXL3B3 kernel: Core Driver (ERROR) 0 0: Edma Error Reg 0x10
Feb 27 07:31:57 TS-WXL3B3 kernel: start to wait 1000 mili sec
Feb 27 07:31:57 TS-WXL3B3 kernel: wait finished.
** BUFFALO Disable Command Queuing Function [0 0] **
scsi 0:0:0:0: Direct-Access      SAMSUNG  HD502HI           1AG0 PQ: 0 ANSI: 5
Linux IAL (ERROR) [0 0 0]: set device max sectors to 2048
/sbin/hotplug [scsi]
/sbin/hotplug [scsi_disk]
Linux IAL (ERROR) : retry command host=0, bus=0 SCpnt = 809e8960
sd 0:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
sd 0:0:0:0: [sdb] Write Protect is off
sd 0:0:0:0: [sdb] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
sd 0:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
sd 0:0:0:0: [sdb] Write Protect is off
sd 0:0:0:0: [sdb] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
sdb: sdb1 sdb2 sdb3 sdb4 sdb5 sdb6
/sbin/hotplug [block]
/sbin/hotplug [block]
/sbin/hotplug [block]
/sbin/hotplug [block]
/sbin/hotplug [block]
/sbin/hotplug [block]
sd 0:0:0:0: [sdb] Attached SCSI disk
/sbin/hotplug [block]
/sbin/hotplug [scsi_device]
sd 0:0:0:0: Attached scsi generic sg1 type 0
need re create devlink!!!
/sbin/hotplug [scsi_generic]
*** /usr/local/bin/DirectCopy_wait.sh [stop]
Feb 27 07:32:02 TS-WXL3B3 kernel: ** BUFFALO Disable Command Queuing Function [0 0] **
Feb 27 07:32:02 TS-WXL3B3 kernel: scsi 0:0:0:0: Direct-Access      SAMSUNG  HD502HI           1AG0 PQ: 0 ANSI: 5
Feb 27 07:32:02 TS-WXL3B3 kernel: Linux IAL (ERROR) [0 0 0]: set device max sectors to 2048
Feb 27 07:32:02 TS-WXL3B3 kernel: Linux IAL (ERROR) : retry command host=0, bus=0 SCpnt = 809e8960
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] Write Protect is off
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] 976773168 512-byte hardware sectors (500108 MB)
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] Write Protect is off
Feb 27 07:32:02 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
Feb 27 07:32:02 TS-WXL3B3 kernel: sdb: sdb1 sdb2 sdb3 sdb4 sdb5 sdb6
Feb 27 07:32:03 TS-WXL3B3 kernel: sd 0:0:0:0: [sdb] Attached SCSI disk
Feb 27 07:32:03 TS-WXL3B3 kernel: sd 0:0:0:0: Attached scsi generic sg1 type 0
hdd_wakeup.sh : FLAG_FORMAT=0
```

Format of disk 1

Format of disk 1

Disk 1 remains "Removed" even if "Re-recognition" is executed.
However, since the model name appears on the disc 1, it may have been recognized.

"Disk format" disk 1

After a while, it became normal from the management screen, but the ERROR LED and LCD remain bright red. The DISK1 LED is also blinking. . .

```
root@TS-WXL3B3:~# cat /proc/mdstat
Personalities : [raid0] [raid1] [raid6] [raid5] [raid4]
md1 : active raid1 sdb2[0] sda2[1]
      4999936 blocks [2/2] [UU]

md10 : active raid1 sdb5[0] sda5[1]
      999872 blocks [2/2] [UU]

md0 : active raid1 sdb1[0] sda1[1]
      999872 blocks [2/2] [UU]

unused devices:
root@TS-WXL3B3:~#
```

Even though the synchronization is over ...

Buffalo, are you upset?

Restart

Press and hold the power switch to turn off the power

```
System halted.
BuffaloChangePowerStatusBeforeHalt > Check power status. MagicKey = 0x02
BuffaloGpio_ChangePowerStatus > Writing 0x7a
BuffaloChangePowerStatusBeforeHalt > Changed to 0x7a from 0x02
>miconCntl_PowerOff
>miconCntl_ShutdownWait
p
```

Still, the ERROR LED and LCD remain bright red. The DISK1 LED is also blinking. . .

Buffalo, are you upset?

Unplug / stab outlet

Restart

It has started safely. LED and LCD are normal.

reconfirm

Double check that you can log in as root from the telnet / serial console.

First, telnet

```
yasunari @ sil: ~ $! tel
telnet 192.168.2.70
Trying 192.168.2.70...
Connected to 192.168.2.70.
Escape character is '^]'.

```

BUFFALO INC. TeraStation series

```
TS-WXL3B3 login: root
Last login: Sat Feb 27 07:43:47 +0900 2010 on ttyS0.
No mail.
root@TS-WXL3B3:~#
```

Next, the serial console

```
BUFFALO INC. TeraStation series
TS-WXL3B3 login: 3 USB_DEVICE=none
4 USB_DEVICE=none
5 USB_DEVICE=none
KERNELMOn (PSW_on)
Shutting down pwrmgr:

BUFFALO INC. TeraStation series
TS-WXL3B3 login: root
Last login: Sat Feb 27 07:55:19 +0900 2010 on pts/0.
No mail.
root@TS-WXL3B3:~#
```

OK



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TS-WXL

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