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Replicating ZFS Root Disks

📅 2009-11-17 · 2768 WORDS · 13 MINUTE READ 📁 OPEN SOURCE 🏷 SOLARIS · ZFS

Suppose you have a Solaris system already set up with a ZFS root volume and you wish to clone it to another system by replicating the disks. This used to be easy with UFS volumes as you could simply use ufsdump piped to ufsrestore onto a new target disk, install boot blocks then move the new disk over to the target system and boot as normal. With ZFS there are a few extra hurdles incurred by the meta-data but it also saves us from problems like mixing up which disk was the primary mirror and which was the shadow copy. Since we can only replicate from a snapshot, we guarantee that all datasets in the pool contain a consistent set of data from a particular point in time.

Steps to clone a system with ZFS root volumes

- Source System
  1. Verify status before starting

Source System

Verify status before starting

```
# zpool status
  pool: rpool
 state: ONLINE
 scrub: none requested
config:

        NAME          STATE     READ WRITE CKSUM
        rpool         ONLINE       0     0     0
          mirror      ONLINE       0     0     0
            c0t0d0s0  ONLINE       0     0     0
            c0t1d0s0  ONLINE       0     0     0

errors: No known data errors


# zpool get bootfs rpool
NAME    PROPERTY  VALUE           SOURCE
rpool   bootfs    rpool/ROOT/5.10  local


# zfs list
NAME                 USED  AVAIL  REFER  MOUNTPOINT
```

```
rpool                  4.55G  62.4G    95K  /rpool
rpool/ROOT             1.54G  62.4G    18K  legacy
rpool/ROOT/5.10        1.54G  62.4G  1.12G  /
rpool/ROOT/5.10/var     434M  7.58G   434M  /var
rpool/dump             1.00G  62.4G  1.00G  -
rpool/home             31.5K  8.00G  31.5K  /home
rpool/srv              9.60M  62.4G  9.60M  /srv
rpool/swap                2G  64.4G  12.2M  -
```

Create recursive snapshot

```
# zfs snapshot -r rpool@20091116

# zfs list
NAME                            USED  AVAIL  REFER  MOUNTPOINT
rpool                          4.56G  62.4G    95K  /rpool
rpool@20091116                     0      -    95K  -
rpool/ROOT                     1.54G  62.4G    18K  legacy
rpool/ROOT@20091116                0      -    18K  -
rpool/ROOT/5.10                1.54G  62.4G  1.12G  /
rpool/ROOT/5.10@20091116        133K      -  1.12G  -
rpool/ROOT/5.10/var             434M  7.58G   434M  /var
rpool/ROOT/5.10/var@20091116       0      -   434M  -
rpool/dump                     1.00G  62.4G  1.00G  -
rpool/dump@20091116                0      -  1.00G  -
rpool/home                     31.5K  8.00G  31.5K  /home
rpool/home@20091116                0      -  31.5K  -
rpool/srv                      9.60M  62.4G  9.60M  /srv
rpool/srv@20091116                 0      -  9.60M  -
rpool/swap                     2.01G  64.4G  12.2M  -
rpool/swap@20091116                0      -  12.2M  -
```

Insert and label new disks

```
# format </dev/null
Searching for disks...done



AVAILABLE DISK SELECTIONS:
       0. c0t0d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
          /pci@1c,600000/scsi@2/sd@0,0
```

```
          1. c0t1d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
             /pci@1c,600000/scsi@2/sd@1,0
Specify disk (enter its number):


# devfsadm -c disk


# format
Searching for disks...done

c0t2d0: configured with capacity of 68.35GB
c0t3d0: configured with capacity of 68.35GB



AVAILABLE DISK SELECTIONS:
       0. c0t0d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
          /pci@1c,600000/scsi@2/sd@0,0
       1. c0t1d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
          /pci@1c,600000/scsi@2/sd@1,0
       2. c0t2d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
          /pci@1c,600000/scsi@2/sd@2,0
       3. c0t3d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
          /pci@1c,600000/scsi@2/sd@3,0
Specify disk (enter its number): 2
selecting c0t2d0
[disk formatted]
Disk not labeled.  Label it now? y



FORMAT MENU:
        disk       - select a disk
        type       - select (define) a disk type
        partition  - select (define) a partition table
        current    - describe the current disk
        format     - format and analyze the disk
        repair     - repair a defective sector
        label      - write label to the disk
        analyze    - surface analysis
        defect     - defect list management
        backup     - search for backup labels
        verify     - read and display labels
        save       - save new disk/partition definitions
        inquiry    - show vendor, product and revision
        volname    - set 8-character volume name
```

```
        !<cmd>     - execute <cmd>, then return
        quit
format> disk 3
selecting c0t3d0
[disk formatted]
Disk not labeled.  Label it now? y
format> ^D
```

Create partition tables

```
# prtvtoc /dev/rdsk/c0t0d0s2 | fmthard -s - /dev/rdsk/c0t2d0s2
fmthard:  New volume table of contents now in place.

# prtvtoc /dev/rdsk/c0t0d0s2 | fmthard -s - /dev/rdsk/c0t3d0s2
fmthard:  New volume table of contents now in place.
```

Create new zpool

```
# zpool create newpool mirror c0t2d0s0 c0t3d0s0

# zpool status
  pool: newpool
 state: ONLINE
 scrub: none requested
config:

        NAME          STATE     READ WRITE CKSUM
        newpool       ONLINE       0     0     0
          mirror      ONLINE       0     0     0
            c0t2d0s0  ONLINE       0     0     0
            c0t3d0s0  ONLINE       0     0     0

errors: No known data errors

  pool: rpool
 state: ONLINE
 scrub: none requested
config:

        NAME          STATE     READ WRITE CKSUM
        rpool         ONLINE       0     0     0
```

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```
              mirror      ONLINE      0    0    0
                 c0t0d0s0  ONLINE      0    0    0
                 c0t1d0s0  ONLINE      0    0    0

errors: No known data errors

# zfs list
NAME                          USED  AVAIL  REFER  MOUNTPOINT
newpool                       106K  66.9G    18K  /newpool
rpool                        4.56G  62.4G    95K  /rpool
rpool@20091116                   0      -    95K  -
rpool/ROOT                   1.54G  62.4G    18K  legacy
rpool/ROOT@20091116              0      -    18K  -
rpool/ROOT/5.10              1.54G  62.4G  1.12G  /
rpool/ROOT/5.10@20091116      244K      -  1.12G  -
rpool/ROOT/5.10/var           434M  7.58G   434M  /var
rpool/ROOT/5.10/var@20091116  620K      -   434M  -
rpool/dump                   1.00G  62.4G  1.00G  -
rpool/dump@20091116              0      -  1.00G  -
rpool/home                   31.5K  8.00G  31.5K  /home
rpool/home@20091116              0      -  31.5K  -
rpool/srv                    9.60M  62.4G  9.60M  /srv
rpool/srv@20091116               0      -  9.60M  -
rpool/swap                   2.01G  64.4G  12.2M  -
rpool/swap@20091116              0      -  12.2M  -
```

Replicate pool's dataset

The base dataset contains the `/boot/` directory which includes the `boot_archive` and kernel for booting.

This can also be done over the network using a transport such as `ssh` or `rsh` but you must have a target system already running.

```
# zfs send rpool@20091116 | zfs receive -F newpool
receiving full stream of rpool@20091116 into newpool@20091116
cannot mount '/rpool': directory is not empty

# zfs list
NAME                          USED  AVAIL  REFER  MOUNTPOINT
newpool                       194K  66.9G    95K  /rpool
newpool@20091116                 0      -    95K  -
```

http://waddles.org/2009/11/17/replicating-zfs-root-disks/   29.4.2018

```
rpool                           4.56G  62.4G    95K  /rpool
rpool@20091116                      0      -    95K  -
rpool/ROOT                      1.54G  62.4G    18K  legacy
rpool/ROOT@20091116                 0      -    18K  -
rpool/ROOT/5.10                 1.54G  62.4G  1.12G  /
rpool/ROOT/5.10@20091116         244K      -  1.12G  -
rpool/ROOT/5.10/var             434M   7.58G   434M  /var
rpool/ROOT/5.10/var@20091116     620K      -   434M  -
rpool/dump                      1.00G  62.4G  1.00G  -
rpool/dump@20091116                 0      -  1.00G  -
rpool/home                      31.5K  8.00G  31.5K  /home
rpool/home@20091116                 0      -  31.5K  -
rpool/srv                       9.60M  62.4G  9.60M  /srv
rpool/srv@20091116                  0      -  9.60M  -
rpool/swap                      2.01G  64.4G  12.2M  -
rpool/swap@20091116                 0      -  12.2M  -
```

Replicate remaining datasets

```
# for dataset in ROOT ROOT/5.10 ROOT/5.10/var dump home srv swap; do
> zfs send rpool/$dataset@20091116 | zfs receive newpool/$dataset
> done

# zfs list
NAME                            USED  AVAIL  REFER  MOUNTPOINT
newpool                         2.14G  64.8G    95K  /rpool
newpool@20091116                    0      -    95K  -
newpool/ROOT                    1.12G  64.8G    19K  /rpool/ROOT
newpool/ROOT@20091116             16K      -    18K  -
newpool/ROOT/5.10               1.12G  64.8G  1.12G  /rpool/ROOT/5.10
newpool/ROOT/5.10@20091116          0      -  1.12G  -
newpool/ROOT/5.10/var           434M   64.4G   434M  /var
newpool/ROOT/5.10/var@20091116      0      -   434M  -
newpool/dump                    1.00G  64.8G  1.00G  -
newpool/dump@20091116               0      -  1.00G  -
newpool/home                    31.5K  64.8G  31.5K  /rpool/home
newpool/home@20091116               0      -  31.5K  -
newpool/srv                     9.60M  64.8G  9.60M  /rpool/srv
newpool/srv@20091116                0      -  9.60M  -
newpool/swap                    12.2M  64.8G  12.2M  -
newpool/swap@20091116               0      -  12.2M  -
rpool                           4.56G  62.4G    97K  /rpool
```

```
rpool@20091116                      18K      -     95K  -
rpool/ROOT                        1.54G   62.4G    18K  legacy
rpool/ROOT@20091116                  0      -     18K  -
rpool/ROOT/5.10                   1.54G   62.4G  1.12G  /
rpool/ROOT/5.10@20091116           246K      -   1.12G  -
rpool/ROOT/5.10/var               434M    7.58G   434M  /var
rpool/ROOT/5.10/var@20091116       620K      -    434M  -
rpool/dump                        1.00G   62.4G  1.00G  -
rpool/dump@20091116                  0      -   1.00G  -
rpool/home                        31.5K   8.00G  31.5K  /home
rpool/home@20091116                  0      -   31.5K  -
rpool/srv                         9.60M   62.4G  9.60M  /srv
rpool/srv@20091116                   0      -   9.60M  -
rpool/swap                        2.01G   64.4G  12.2M  -
rpool/swap@20091116                  0      -   12.2M  -
```

Set mountpoints

```
# zfs set mountpoint=legacy newpool/ROOT

# zfs set mountpoint=/ newpool/ROOT/5.10
cannot mount '/': directory is not empty
property may be set but unable to remount filesystem

# zfs set mountpoint=/home newpool/home
cannot mount '/home': directory is not empty
property may be set but unable to remount filesystem

# zfs set mountpoint=/srv newpool/srv
cannot mount '/srv': directory is not empty
property may be set but unable to remount filesystem

# zfs list
NAME                              USED   AVAIL  REFER  MOUNTPOINT
newpool                           2.14G   64.8G    95K  /rpool
newpool@20091116                     0      -     95K  -
newpool/ROOT                      1.12G   64.8G    19K  legacy
newpool/ROOT@20091116              16K      -     18K  -
newpool/ROOT/5.10                 1.12G   64.8G  1.12G  /
newpool/ROOT/5.10@20091116           0      -   1.12G  -
newpool/ROOT/5.10/var             434M    64.4G   434M  /var
newpool/ROOT/5.10/var@20091116       0      -    434M  -
```

```
newpool/dump                      1.00G   64.8G   1.00G  -
newpool/dump@20091116                 0      -    1.00G  -
newpool/home                      31.5K   64.8G   31.5K  /home
newpool/home@20091116                 0      -    31.5K  -
newpool/srv                       9.60M   64.8G   9.60M  /srv
newpool/srv@20091116                  0      -    9.60M  -
newpool/swap                      12.2M   64.8G   12.2M  -
newpool/swap@20091116                 0      -    12.2M  -
rpool                             4.56G   62.4G     96K  /rpool
rpool@20091116                      20K      -     95K  -
rpool/ROOT                        1.54G   62.4G     18K  legacy
rpool/ROOT@20091116                   0      -     18K  -
rpool/ROOT/5.10                   1.54G   62.4G   1.12G  /
rpool/ROOT/5.10@20091116           246K      -    1.12G  -
rpool/ROOT/5.10/var                434M   7.58G    434M  /var
rpool/ROOT/5.10/var@20091116       659K      -     434M  -
rpool/dump                        1.00G   62.4G   1.00G  -
rpool/dump@20091116                   0      -    1.00G  -
rpool/home                        31.5K   8.00G   31.5K  /home
rpool/home@20091116                   0      -    31.5K  -
rpool/srv                         9.60M   62.4G   9.60M  /srv
rpool/srv@20091116                    0      -    9.60M  -
rpool/swap                        2.01G   64.4G   12.2M  -
rpool/swap@20091116                   0      -    12.2M  -
```

Set bootfs property

Failure to complete this step will produce a ' no pool_props' error message when the target system boots.

```
# zpool get bootfs rpool
NAME    PROPERTY  VALUE            SOURCE
rpool   bootfs    rpool/ROOT/5.10  local


# zpool get bootfs newpool
NAME      PROPERTY  VALUE     SOURCE
newpool   bootfs    -         default


# zpool set bootfs=newpool/ROOT/5.10 newpool


# zpool get bootfs newpool
NAME      PROPERTY  VALUE            SOURCE
```

```
newpool  bootfs    newpool/ROOT/5.10  local
```

Export the new pool

```
# zpool export newpool

# zpool status
  pool: rpool
 state: ONLINE
 scrub: none requested
config:

        NAME         STATE    READ WRITE CKSUM
        rpool        ONLINE      0     0     0
          mirror     ONLINE      0     0     0
            c0t0d0s0 ONLINE      0     0     0
            c0t1d0s0 ONLINE      0     0     0

errors: No known data errors
```

Install boot blocks to both disks

```
# installboot -F zfs /usr/platform/`uname -i`/lib/fs/zfs/bootblk /dev/rdsk/c0
# installboot -F zfs /usr/platform/`uname -i`/lib/fs/zfs/bootblk /dev/rdsk/c0
#
```

⟨   ⟩

On x86 hardware we use grub as a boot loader so the command is different:

```
# installgrub /boot/grub/stage1 /boot/grub/stage2 /dev/rdsk/c0t2d0s0
stage1 written to partition 0 sector 0 (abs 4096)
stage2 written to partition 0, 272 sectors starting at 50 (abs 4146)
```

Target System

Transfer disks and boot failsafe

Make sure you are on the system console (ALOM) of the target system.

```
SC Alert: DISK @ HDD0 has been inserted.


SC Alert: DISK @ HDD1 has been inserted.


{0} ok boot -F failsafe -Z newpool/ROOT/5.10


SC Alert: Host System has Reset
Probing system devices
Probing memory
Probing I/O buses
rsc not found.
rsc not found.
Probing system devices
Probing memory
Probing I/O buses



Rebooting with command: boot -F failsafe -Z newpool/ROOT/5.10
Boot device: /pci@1c,600000/scsi@2/disk@0,0:a  File and args: -F failsafe -Z
krtld: Ignoring invalid kernel option -Z.
krtld: Unused kernel arguments: `newpool/ROOT/5.10'.
SunOS Release 5.10 Version Generic_139555-08 64-bit
Copyright 1983-2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
Hardware watchdog enabled
Configuring devices.
Searching for installed OS instances...

ROOT/5.10 was found on newpool.
Do you wish to have it mounted read-write on /a? [y,n,?] n

Starting shell.
#
```

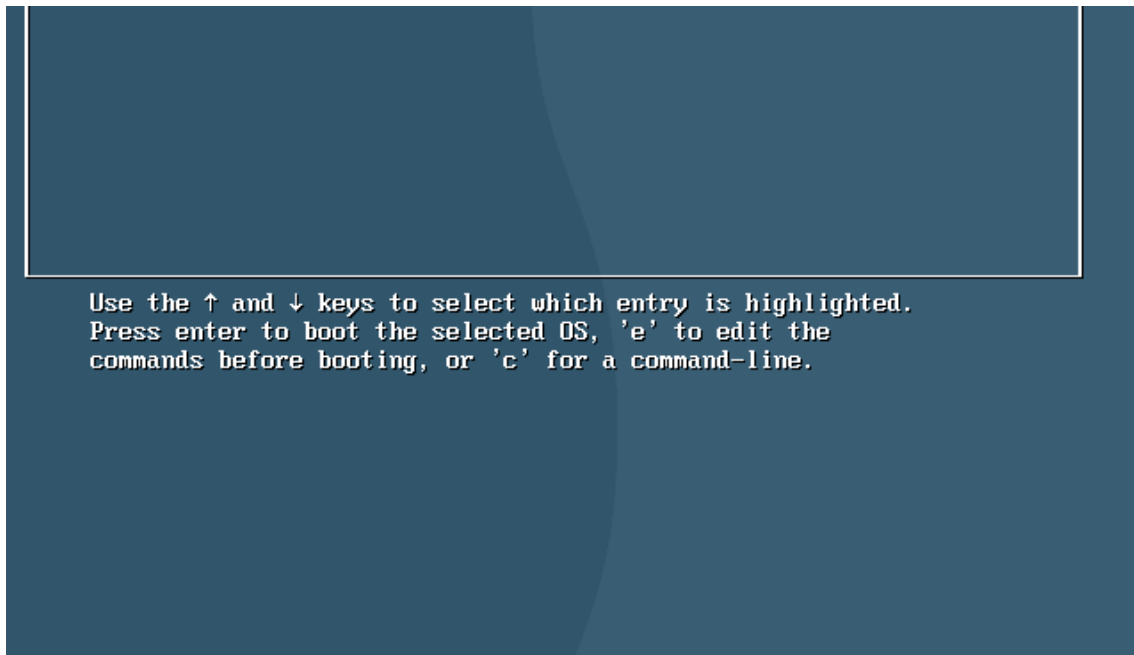On x86 hardware, you should be presented with the grub splash screen where you can select to boot in failsafe mode.

```
Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, 'e' to edit the
commands before booting, or 'c' for a command-line.
```
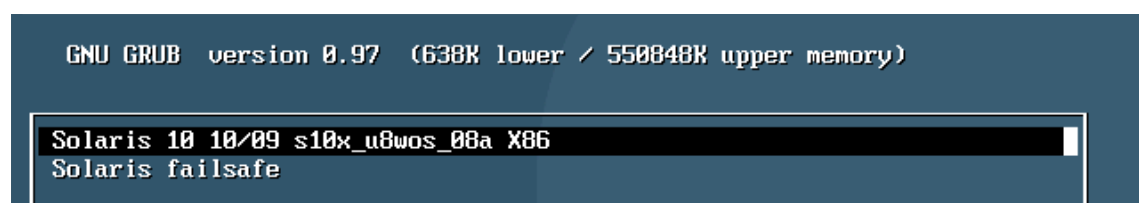
Grub menu

Import zpool as rpool

This step is necessary otherwise the system will complain that the zpool was last mounted on a different system and refuse to import it. Renaming is not strictly necessary but keeps consistency among various systems.

```
# zpool import -f newpool rpool
cannot mount '/': directory is not empty
cannot mount '/home': failed to create mountpoint
cannot mount '/rpool': failed to create mountpoint
cannot mount '/srv': failed to create mountpoint
cannot mount '/var': directory is not empty

# zfs list
NAME                          USED   AVAIL   REFER  MOUNTPOINT
rpool                         2.57G  64.4G    95K   /rpool
rpool@20091116                   0      -     95K   -
rpool/ROOT                    1.54G  64.4G    19K   legacy
rpool/ROOT@20091116            16K      -     18K   -
rpool/ROOT/5.10               1.54G  64.4G   1.12G  /
rpool/ROOT/5.10@20091116      3.98M      -   1.12G  -
rpool/ROOT/5.10/var            434M  64.4G    434M  /var
rpool/ROOT/5.10/var@20091116     0      -     434M  -
rpool/dump                    1.00G  64.4G   1.00G  -
rpool/dump@20091116            16K      -    1.00G  -
rpool/home                    31.5K  64.4G   31.5K  /home
```

```
rpool/home@20091116              0      -   31.5K  -
rpool/srv                     9.60M  64.4G  9.60M  /srv
rpool/srv@20091116               0      -   9.60M  -
rpool/swap                    12.2M  64.4G  12.2M  -
rpool/swap@20091116              0      -   12.2M  -


# zpool get bootfs rpool
NAME    PROPERTY  VALUE             SOURCE
rpool   bootfs    rpool/ROOT/5.10   local
```

Export the zpool

Now that we have updated the zpool's meta-data we can export it again and boot it without the system complaining.

```
# zpool export rpool

# init 0
syncing file systems... done
Program terminated
{0} ok
```

Boot to single user mode

If you see messages like this when booting, you have probably failed to replicate the /var dataset. Return the disks to the source system, import the zpool and try zfs send rpool/ROOT/5.10/var again.

```
ERROR: svc:/system/filesystem/minimal:default failed to mount /var/run  (see
Nov 16 17:52:47 svc.startd[7]: svc:/system/filesystem/minimal:default: Method
Nov 16 17:52:47 svc.startd[7]: system/filesystem/minimal:default failed fatal
Requesting System Maintenance Mode
(See /lib/svc/share/README for more information.)
Console login service(s) cannot run

Root password for system maintenance (control-d to bypass):
```

This is what you should see:

```
{0} ok boot -s

SC Alert: Host System has Reset
Probing system devices
Probing memory
Probing I/O buses
rsc not found.
rsc not found.
Probing system devices
Probing memory
Probing I/O buses


Rebooting with command: boot -s
Boot device: /pci@1c,600000/scsi@2/disk@0,0:a  File and args: -s
SunOS Release 5.10 Version Generic_141414-01 64-bit
Copyright 1983-2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
Hardware watchdog enabled
Booting to milestone &quot;milestone/single-user:default&quot;.
Hostname: host01
WARNING: bge0 has duplicate address 192.168.105.104 (in use by 00:03:ba:bf:72
Requesting System Maintenance Mode
SINGLE USER MODE

Root password for system maintenance (control-d to bypass):
single-user privilege assigned to /dev/console.
Entering System Maintenance Mode

Nov 17 12:03:38 su: 'su root' succeeded for root on /dev/console
Sun Microsystems Inc.   SunOS 5.10      Generic January 2005
host01:/#
```
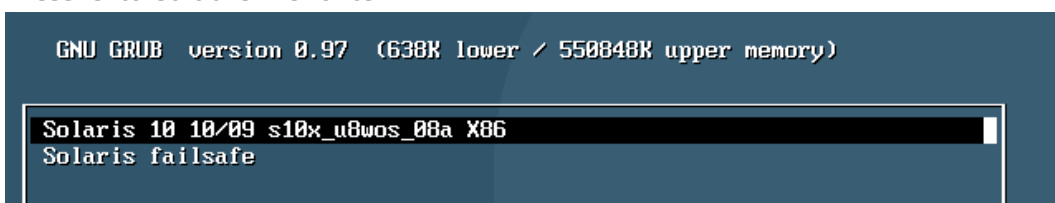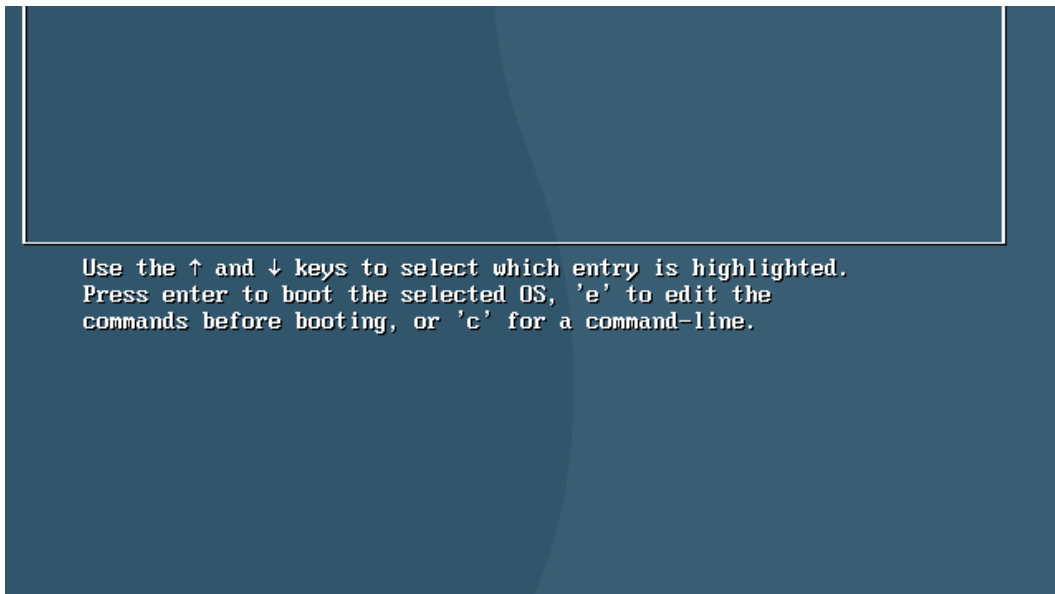
On x86 hardware, you may need to edit the kernel line in grub's menu to boot to single user mode.

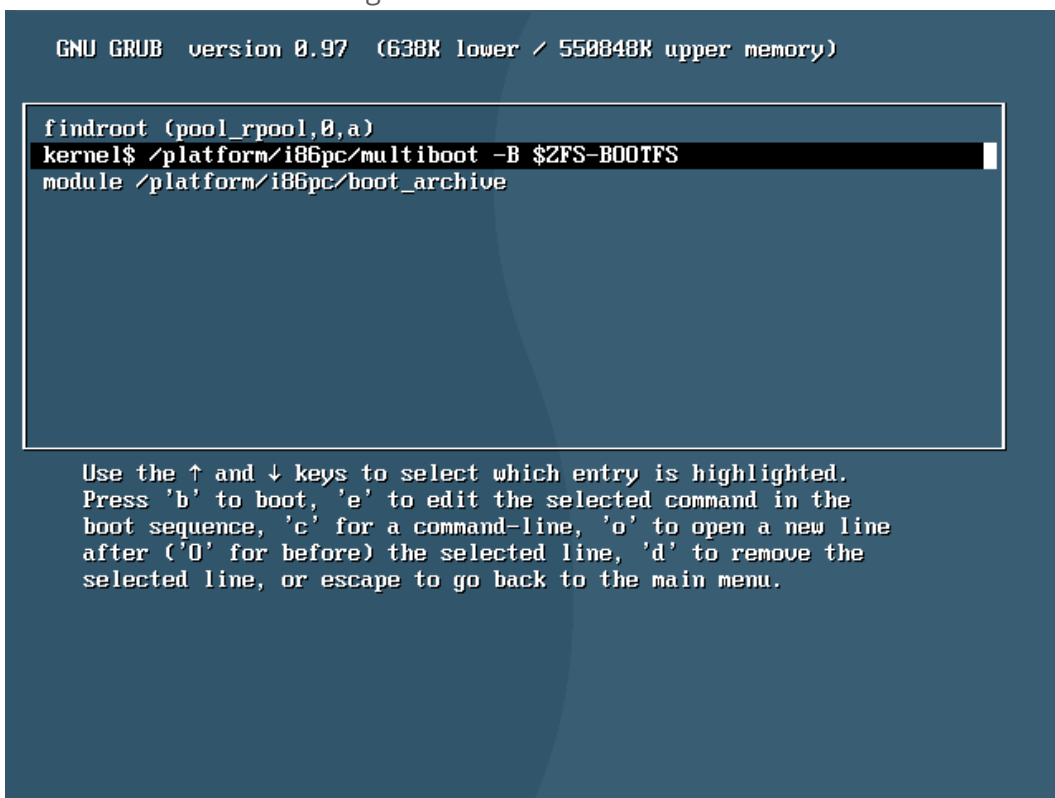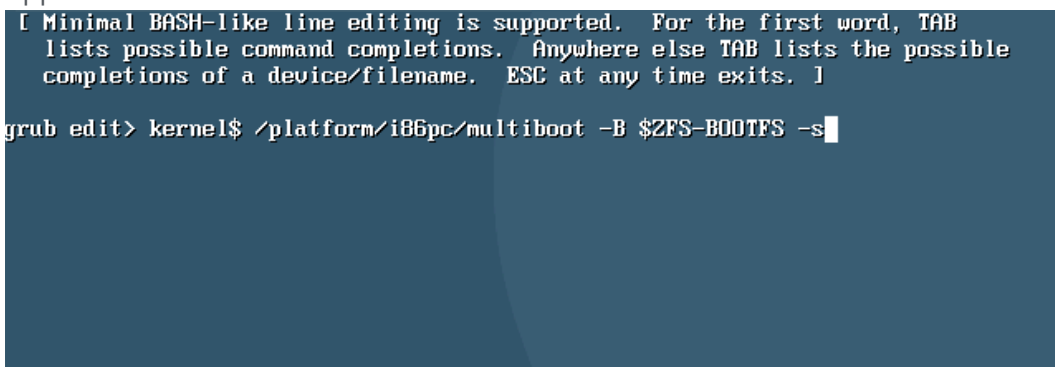1. Press 'e' to edit the menu item

```
Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, 'e' to edit the
commands before booting, or 'c' for a command-line.
```

Edit grub menu item

2. Press down arrow then 'e' again to edit the kernel line.

```
    GNU GRUB  version 0.97  (638K lower / 550848K upper memory)

 findroot (pool_rpool,0,a)
 kernel$ /platform/i86pc/multiboot -B $ZFS-BOOTFS
 module /platform/i86pc/boot_archive




      Use the ↑ and ↓ keys to select which entry is highlighted.
      Press 'b' to boot, 'e' to edit the selected command in the
      boot sequence, 'c' for a command-line, 'o' to open a new line
      after ('O' for before) the selected line, 'd' to remove the
      selected line, or escape to go back to the main menu.
```

Edit kernel line

3. Append '-s' to the end of the line

```
[ Minimal BASH-like line editing is supported.  For the first word, TAB
  lists possible command completions.   Anywhere else TAB lists the possible
  completions of a device/filename.   ESC at any time exits. ]

grub edit> kernel$ /platform/i86pc/multiboot -B $ZFS-BOOTFS -s
```

Append -s

4. Press Enter to accept the line, then 'b' to boot it.

Unconfigure the system

```
host01:/# sys-unconfig
                        WARNING

This program will unconfigure your system.  It will cause it
to revert to a &quot;blank&quot; system - it will not have a name or know
about other systems or networks.

This program will also halt the system.

Do you want to continue (y/n) ? y
stopping NetWorker daemons:
 nsr_shutdown -q
svc.startd: The system is coming down.  Please wait.
svc.startd: 22 system services are now being stopped.
svc.startd: The system is down.
syncing file systems... done
Program terminated
{0} ok
```

Reconfigure the system

```
{0} ok boot

SC Alert: Host System has Reset
Probing system devices
Probing memory
Probing I/O buses
```

```
rsc not found.
rsc not found.
Probing system devices
Probing memory
Probing I/O buses


Rebooting with command: boot
Boot device: bootdisk  File and args:
SunOS Release 5.10 Version Generic_141414-01 64-bit
Copyright 1983-2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
Hardware watchdog enabled
Hostname: unknown
Configuring devices.
Reading ZFS config: done.
Mounting ZFS filesystems: (6/6)


Select a Language

  0. English
  1. es
  2. fr

Please make a choice (0 - 2), or press h or ? for help: 0
```

Note: If you connected to the ALOM remotely, you should choose **vt100** when prompted for your terminal type.

At the end of the reconfiguration, the system will reboot automatically. It may be necessary to add host entries back into `/etc/hosts` after the system has booted.

Cleanup

Once you are satisfied the system is running properly, destroy the source system's snapshot which is now on the target system. This can also be done on the source system when you are finished replicating disks.

```
# zpool status
  pool: rpool
 state: ONLINE
```

```
 scrub: none requested
config:

        NAME          STATE      READ WRITE CKSUM
        rpool         ONLINE        0     0     0
          mirror      ONLINE        0     0     0
            c0t0d0s0  ONLINE        0     0     0
            c0t1d0s0  ONLINE        0     0     0

errors: No known data errors

# zfs list
NAME                            USED  AVAIL  REFER  MOUNTPOINT
rpool                          2.67G  64.3G    95K  /rpool
rpool@20091116                     0      -    95K  -
rpool/ROOT                     1.65G  64.3G    19K  legacy
rpool/ROOT@20091116              16K      -    18K  -
rpool/ROOT/5.10                1.65G  64.3G  1.12G  /
rpool/ROOT/5.10@20091116       93.3M      -  1.12G  -
rpool/ROOT/5.10/var             446M  64.3G   445M  /var
rpool/ROOT/5.10/var@20091116   1.32M      -   434M  -
rpool/dump                     1.00G  64.3G  1.00G  -
rpool/dump@20091116              16K      -  1.00G  -
rpool/home                       52K  64.3G  31.5K  /home
rpool/home@20091116            20.5K      -  31.5K  -
rpool/srv                      9.60M  64.3G  9.60M  /srv
rpool/srv@20091116                 0      -  9.60M  -
rpool/swap                     12.2M  64.3G    16K  -
rpool/swap@20091116            12.2M      -  12.2M  -


# zfs destroy -r rpool@20091116

# zfs list
NAME                   USED  AVAIL  REFER  MOUNTPOINT
rpool                 2.57G  64.4G    95K  /rpool
rpool/ROOT            1.56G  64.4G    19K  legacy
rpool/ROOT/5.10       1.56G  64.4G  1.12G  /
rpool/ROOT/5.10/var    445M  64.4G   445M  /var
rpool/dump            1.00G  64.4G  1.00G  -
rpool/home            31.5K  64.4G  31.5K  /home
rpool/srv             9.60M  64.4G  9.60M  /srv
rpool/swap              16K  64.4G    16K  -
```

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