

0x09854280 [0,0]

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ZFS

MySQL

- <http://www.mysqlconf.com/mysql2009/public/schedule/detail/7121>
- <http://assets.en.oreilly.com/1/event/21/Optimizing%20MySQL%20Performance%20with%20ZFS%20>
- <http://www.youtube.com/watch?v=a31NhwzIAxs>

cache only metadata for Innodb

```
zfs set primarycache=metadata tank/db
```

match recordsize to block size

before creating database

```
zfs set recordsize=16k tank/db
```

root filesystem on zfs

based on

<https://github.com/zfsonlinux/zfs/wiki/HOWTO-install-Debian-GNU-Linux-to-a-Native-ZFS-Root-Filesystem>

```
root@lib10:~# apt-get install zfs-initramfs

root@lib10:~# zfs create -o mountpoint=none lib10/ROOT

root@lib10:~# zfs create -o mountpoint=/ lib10/ROOT/debian-1
cannot mount '/': directory is not empty
filesystem successfully created, but not mounted

root@lib10:~# zpool set bootfs=lib10/ROOT/debian-1 lib10

root@lib10:~# mkdir /tmp/root
root@lib10:~# mount --bind / /tmp/root/

root@lib10:~# mkdir /tmp/zfs-root
root@lib10:~# zfs set mountpoint=/tmp/zfs-root lib10/ROOT/debian-1
root@lib10:~# zfs mount lib10/ROOT/debian-1
```

```

root@lib10:~# zfs set compression=lz4 lib10/ROOT
root@lib10:~# rsync -ravH --numeric-ids /tmp/root/ /tmp/zfs-root/

# duh, source btrfs had snapshot on it

root@lib10:~# rsync -ravH --numeric-ids --exclude './.snapshot' --exclude '/tmp' --delete /tmp/roo

root@lib10:~# zfs umount lib10/ROOT/debian-1

root@lib10:~# cd /tmp/zfs-root/

root@lib10:~# cd /tmp/zfs-root/
root@lib10:/tmp/zfs-root# mount --bind /dev dev/
root@lib10:/tmp/zfs-root# mount --bind /sys sys/
root@lib10:/tmp/zfs-root# mount --bind /proc/ proc/
root@lib10:/tmp/zfs-root# chroot .
root@lib10:/#

root@lib10:~# df
Filesystem          1K-blocks    Used Available Use% Mounted on
lib10/ROOT/debian-1 195788544 1149184 194639360   1% /
udev                10270376      0 10270376   0% /dev
root@lib10:~# mount /boot/
root@lib10:~# df
Filesystem          1K-blocks    Used Available Use% Mounted on
lib10/ROOT/debian-1 195787904 1149184 194638720   1% /
udev                10270376      0 10270376   0% /dev
/dev/sdg1           198337      62072   136265   32% /boot

root@lib10:~# grep zfs /etc/default/grub
GRUB_CMDLINE_LINUX_DEFAULT="boot=zfs rpool=lib10 bootfs=lib10/ROOT/debian-1"

root@lib10:~# update-grub

root@lib10:~# grep zfs /boot/grub/grub.cfg
insmod zfs
    linux    /vmlinuz-4.8.0-2-amd64 root=ZFS=lib10/ROOT/debian-1 ro boot=zfs rpool=lib10 boot=li
    linux    /vmlinuz-4.8.0-2-amd64 root=ZFS=lib10/ROOT/debian-1 ro boot=zfs rpool=li
    linux    /vmlinuz-4.8.0-1-amd64 root=ZFS=lib10/ROOT/debian-1 ro boot=zfs rpool=li

root@lib10:~# update-initramfs -v -k all -u

root@lib10:~# umount /boot/
root@lib10:~# exit

root@lib10:~# umount /tmp/zfs-root/dev/
root@lib10:~# umount /tmp/zfs-root/proc/
root@lib10:~# umount /tmp/zfs-root/sys/

root@lib10:~# zfs umount lib10/ROOT/debian-1

root@lib10:~# zfs set mountpoint=/ lib10/ROOT/debian-1

```