ZPOOL: Create a new zpool for zfs filesystems

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# Tested on RHEL 6 & 7



# ZFS is a combined file system and logical volume manager designed
by Sun Microsystems.
# The features of ZFS include protection against data corruption,
support for high storage
# capacities, integration of the concepts of filesystem and volume
management, snapshots
# and copy-on-write clones, continuous integrity checking and
automatic repair, RAID-Z and
# native NFSv4 ACLs. ZFS is implemented as open-source software,
licensed under the Common
# Development and Distribution License (CDDL).



# Even if ZFS can use partitions, it is recommended to use whole
disks.

# 'zfs' daemon must be started at boot-up. zpool are not defined in
/etc/fstab; the zfs
# daemon will import and mount zfs pools automatically. It reads the
file
# /etc/zfs/zpool.cache.




# ----------------------------------------------------------------
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# Creating a concat zpool
# ------------------------------------------------------------------
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POOLNAME=c_pool
POOLMNTP=/c_pool
DEVICE01=/dev/sdb
DEVICE02=/dev/sdc

# At the time of creation, mount point for the newly created pool may
be specified. If not
# specified, pool will be mounted under /<zpool_name> (on the other
hand, if specified at
# the moment of creation, mountpoint won't be automatically removed
when destroying the
# pool)

zpool create -m $POOLMNTP $POOLNAME $DEVICE01 $DEVICE02

# If you have an error like this one:

   invalid vdev specification
   use '-f' to override the following errors:
   /dev/sdb does not contain an EFI label but it may contain
partition
   information in the MBR.

# you should use '-f' option to create the pool - first ensure that
disk(s) are the
# right one(s):

# zpool create -f -m $POOLMNTP $POOLNAME $DEVICE01 $DEVICE02



# Check

zpool list
```

```
   NAME            SIZE  ALLOC   FREE    CAP  DEDUP  HEALTH  ALTROOT
   c_pool  19.9G   104K  19.9G     0%  1.00x  ONLINE   -
```

zpool status $POOLNAME
```
    pool: c_pool
   state: ONLINE
   scan: none requested
  config:


        NAME            STATE      READ WRITE CKSUM
        c_pool  ONLINE        0      0      0
          sdb ONLINE         0      0      0
          sdc         ONLINE        0      0      0
```

zfs list
```
   NAME           USED  AVAIL  REFER  MOUNTPOINT
   c_pool   104K  19.6G    30K  /c_pool
```

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# -----------------------------------------------------------------
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# Creating a mirrored zpool
# -----------------------------------------------------------------
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POOLNAME=m_pool
POOLMNTP=/m_pool
SUBMIRR1=/dev/sdb
SUBMIRR2=/dev/sdc

```
# At the time of creation, mount point for the newly created pool may
be specified. If not
# specified, pool will be mounted under /<zpool_name> (on the other
hand, if specified at
# the moment of creation, mountpoint won't be automatically removed
```

```
when destroying the
# pool)

zpool create -m $POOLMNTP $POOLNAME mirror $SUBMIRR1 $SUBMIRR2

# If you have an error like this one:

   invalid vdev specification
   use '-f' to override the following errors:
   /dev/sdb does not contain an EFI label but it may contain
partition
   information in the MBR.

# you should use '-f' option to create the pool - first ensure that
disk(s) are the
# right one(s):

# zpool create -f -m $POOLMNTP $POOLNAME mirror $SUBMIRR1 $SUBMIRR2


# Check

zpool list
   NAME      SIZE   ALLOC    FREE     CAP  DEDUP  HEALTH  ALTROOT
   m_pool  9.94G    100K   9.94G      0%  1.00x  ONLINE  -


   zpool status $POOLNAME
     pool: m_pool
    state: ONLINE
     scan: none requested
   config:

           NAME            STATE     READ WRITE CKSUM
           m_pool          ONLINE       0     0     0
             mirror-0  ONLINE           0     0     0
               sdb ONLINE        0      0      0
               sdc       ONLINE       0     0     0
```

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   errors: No known data errors


zfs list
   NAME      USED  AVAIL  REFER  MOUNTPOINT
   m_pool    100K  9.78G    30K  /m_pool
```

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