|  |
| --- |
| 1.安装ssm |
| [root@localhost ~]# yum -y install system-storage-manager.noarch |
| 2.检查硬盘和LVM信息 |
| [root@localhost ~]# sudo ssm list  ---------------------------------------------------------//物理设备  Device        Free     Used      Total  Pool  Mount point  ---------------------------------------------------------  /dev/sda                      50.00 GB        PARTITIONED  /dev/sda1                    500.00 MB        /boot  /dev/sda2                      2.02 GB        SWAP  /dev/sda3                     47.50 GB        /  /dev/sdb   4.00 GB  1.00 GB    5.00 GB  vg00  /dev/sdc   5.00 GB  0.00 KB    5.00 GB  vg00  /dev/sdd                       5.00 GB  /dev/sde                       5.00 GB  ---------------------------------------------------------  ----------------------------------------------//存储池  Pool  Type  Devices     Free     Used    Total  ----------------------------------------------  vg00  lvm   2        8.99 GB  1.00 GB  9.99 GB  ----------------------------------------------  ----------------------------------------------------------------------------------//存储池中的LVM卷  Volume          Pool  Volume size  FS      FS size       Free  Type    Mount point  ----------------------------------------------------------------------------------  /dev/vg00/lv00  vg00      1.00 GB  ext2    1.00 GB  957.62 MB  linear  /dev/sda1               500.00 MB  xfs   496.67 MB  406.23 MB  part    /boot  /dev/sda3                47.50 GB  xfs    47.47 GB   43.87 GB  part    /  ---------------------------------------------------------------------------------- |
| 3.将物理磁盘添加到LVM池中 |
| [root@localhost ~]# ssm add -p vg00 /dev/sdd    Physical volume "/dev/sdd" successfully created    Volume group "vg00" successfully extended |
| 4.查看当前存储池 |
| [root@localhost ~]# ssm list  ---------------------------------------------------------  Device        Free     Used      Total  Pool  Mount point  ---------------------------------------------------------  /dev/sda                      50.00 GB        PARTITIONED  /dev/sda1                    500.00 MB        /boot  /dev/sda2                      2.02 GB        SWAP  /dev/sda3                     47.50 GB        /  /dev/sdb   4.00 GB  1.00 GB    5.00 GB  vg00  /dev/sdc   5.00 GB  0.00 KB    5.00 GB  vg00  /dev/sdd   5.00 GB  0.00 KB    5.00 GB  vg00  /dev/sde                       5.00 GB  ---------------------------------------------------------  ------------------------------------------------  Pool  Type  Devices      Free     Used     Total  ------------------------------------------------  vg00  lvm   3        13.99 GB  1.00 GB  14.99 GB  ------------------------------------------------  ----------------------------------------------------------------------------------  Volume          Pool  Volume size  FS      FS size       Free  Type    Mount point  ----------------------------------------------------------------------------------  /dev/vg00/lv00  vg00      1.00 GB  ext2    1.00 GB  957.62 MB  linear  /dev/sda1               500.00 MB  xfs   496.67 MB  406.23 MB  part    /boot  /dev/sda3                47.50 GB  xfs    47.47 GB   43.87 GB  part    /  ---------------------------------------------------------------------------------- |
| 5.扩大LVM卷 |
| [root@localhost ~]# ssm resize -s +10G /dev/vg00/lv00  fsck，来自 util-linux 2.23.2  /dev/mapper/vg00-lv00: 11/65536 files (0.0% non-contiguous), 4763/262144 blocks    Extending logical volume lv00 to 11.00 GiB    Logical volume lv00 successfully resized  resize2fs 1.42.9 (28-Dec-2013)  Resizing the filesystem on /dev/mapper/vg00-lv00 to 2883584 (4k) blocks.  The filesystem on /dev/mapper/vg00-lv00 is now 2883584 blocks long. |
| 6.查看结果 |
| [root@localhost ~]# ssm list  ---------------------------------------------------------  Device        Free     Used      Total  Pool  Mount point  ---------------------------------------------------------  /dev/sda                      50.00 GB        PARTITIONED  /dev/sda1                    500.00 MB        /boot  /dev/sda2                      2.02 GB        SWAP  /dev/sda3                     47.50 GB        /  /dev/sdb   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdc   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdd   3.99 GB  1.01 GB    5.00 GB  vg00  /dev/sde                       5.00 GB  ---------------------------------------------------------  ------------------------------------------------  Pool  Type  Devices     Free      Used     Total  ------------------------------------------------  vg00  lvm   3        3.99 GB  11.00 GB  14.99 GB  ------------------------------------------------  ----------------------------------------------------------------------------------  Volume          Pool  Volume size  FS      FS size       Free  Type    Mount point  ----------------------------------------------------------------------------------  /dev/vg00/lv00  vg00     11.00 GB  ext2   11.00 GB   10.31 GB  linear  /dev/sda1               500.00 MB  xfs   496.67 MB  406.23 MB  part    /boot  /dev/sda3                47.50 GB  xfs    47.47 GB   43.87 GB  part    /  ---------------------------------------------------------------------------------- |
| 7.更新文件系统 |
| [root@localhost ~]# mke2fs /dev/vg00/lv00 |
| 8.挂载结果 |
| [root@localhost ~]# df -hT  文件系统              类型      容量  已用  可用 已用% 挂载点  /dev/sda3             xfs        48G  3.6G   44G    8% /  devtmpfs              devtmpfs  906M     0  906M    0% /dev  tmpfs                 tmpfs     914M   80K  914M    1% /dev/shm  tmpfs                 tmpfs     914M  8.9M  905M    1% /run  tmpfs                 tmpfs     914M     0  914M    0% /sys/fs/cgroup  /dev/sda1             xfs       497M  116M  382M   24% /boot  /dev/mapper/vg00-lv00 ext2       11G  5.0M   11G    1% /mnt |
| 9.创建新的LVM池 |
| [root@localhost ~]# mkdir /soft  [root@localhost ~]# ssm create -s 1G -n soft --fstype xfs -p mysoft /dev/sde /soft  //create创建、-s 1G指定大小、-n soft文件名称、--fstype xfs文件系统、-p mysoft指定存储池名称、/dev/sde /soft指定那块磁盘挂载哪个目录上    Physical volume "/dev/sde" successfully created    Volume group "mysoft" successfully created    Logical volume "soft" created  meta-data=/dev/mysoft/soft       isize=256    agcount=4, agsize=65536 blks           =                       sectsz=512   attr=2, projid32bit=1           =                       crc=0  data     =                       bsize=4096   blocks=262144, imaxpct=25           =                       sunit=0      swidth=0 blks  naming   =version 2              bsize=4096   ascii-ci=0 ftype=0  log      =internal log           bsize=4096   blocks=2560, version=2           =                       sectsz=512   sunit=0 blks, lazy-count=1  realtime =none                   extsz=4096   blocks=0, rtextents=0 |
| 10.查看结果 |
| [root@localhost ~]# ssm list  -----------------------------------------------------------  Device        Free     Used      Total  Pool    Mount point  -----------------------------------------------------------  /dev/sda                      50.00 GB          PARTITIONED  /dev/sda1                    500.00 MB          /boot  /dev/sda2                      2.02 GB          SWAP  /dev/sda3                     47.50 GB          /  /dev/sdb   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdc   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdd   3.99 GB  1.01 GB    5.00 GB  vg00  /dev/sde   4.00 GB  1.00 GB    5.00 GB  mysoft  -----------------------------------------------------------  --------------------------------------------------  Pool    Type  Devices     Free      Used     Total  --------------------------------------------------  mysoft  lvm   1        4.00 GB   1.00 GB   5.00 GB  vg00    lvm   3        3.99 GB  11.00 GB  14.99 GB  --------------------------------------------------  ----------------------------------------------------------------------------------------  Volume            Pool    Volume size  FS       FS size        Free  Type    Mount point  ----------------------------------------------------------------------------------------  /dev/vg00/lv00    vg00       11.00 GB  ext2    11.00 GB    10.31 GB  linear  /mnt  /dev/mysoft/soft  mysoft      1.00 GB  xfs   1014.00 MB  1013.88 MB  linear  /soft  /dev/sda1                   500.00 MB  xfs    496.67 MB   406.23 MB  part    /boot  /dev/sda3                    47.50 GB  xfs     47.47 GB    43.87 GB  part    /  ---------------------------------------------------------------------------------------- |
| 11.对LVM卷快照 |
| [root@localhost ~]# ssm snapshot /dev/mysoft/soft    Rounding up size to full physical extent 208.00 MiB    Logical volume "snap20160531T120543" created  [root@localhost ~]# ssm list snapshots  ------------------------------------------------------------------------------  Snapshot                         Origin  Pool    Volume size      Size  Type  ------------------------------------------------------------------------------  /dev/mysoft/snap20160531T120543  soft    mysoft    208.00 MB  21.30 KB  linear  ------------------------------------------------------------------------------ |
| 12.删除LVM卷 |
| [root@localhost ~]# ssm remove /dev/mysoft/soft  Device '/dev/mysoft/soft' is mounted on '/soft' Unmount (N/y/q) ? Y  Do you really want to remove active logical volume snap20160531T120543? [y/n]: y    Logical volume "snap20160531T120543" successfully removed  Do you really want to remove active logical volume soft? [y/n]: y    Logical volume "soft" successfully removed |
| 13.查看结果 |
| [root@localhost ~]# ssm list  -----------------------------------------------------------  Device        Free     Used      Total  Pool    Mount point  -----------------------------------------------------------  /dev/sda                      50.00 GB          PARTITIONED  /dev/sda1                    500.00 MB          /boot  /dev/sda2                      2.02 GB          SWAP  /dev/sda3                     47.50 GB          /  /dev/sdb   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdc   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdd   3.99 GB  1.01 GB    5.00 GB  vg00  /dev/sde   5.00 GB  0.00 KB    5.00 GB  mysoft  -----------------------------------------------------------  --------------------------------------------------  Pool    Type  Devices     Free      Used     Total  --------------------------------------------------  mysoft  lvm   1        5.00 GB   0.00 KB   5.00 GB  vg00    lvm   3        3.99 GB  11.00 GB  14.99 GB  --------------------------------------------------  ----------------------------------------------------------------------------------  Volume          Pool  Volume size  FS      FS size       Free  Type    Mount point  ----------------------------------------------------------------------------------  /dev/vg00/lv00  vg00     11.00 GB  ext2   11.00 GB   10.31 GB  linear  /mnt  /dev/sda1               500.00 MB  xfs   496.67 MB  406.23 MB  part    /boot  /dev/sda3                47.50 GB  xfs    47.47 GB   43.87 GB  part    /  ---------------------------------------------------------------------------------- |
| 14.删除存储池 |
| [root@localhost ~]# ssm remove mysoft    Volume group "mysoft" successfully removed |
| 15.查看结果 |
| [root@localhost ~]# ssm list  ---------------------------------------------------------  Device        Free     Used      Total  Pool  Mount point  ---------------------------------------------------------  /dev/sda                      50.00 GB        PARTITIONED  /dev/sda1                    500.00 MB        /boot  /dev/sda2                      2.02 GB        SWAP  /dev/sda3                     47.50 GB        /  /dev/sdb   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdc   0.00 KB  5.00 GB    5.00 GB  vg00  /dev/sdd   3.99 GB  1.01 GB    5.00 GB  vg00  /dev/sde                       5.00 GB  ---------------------------------------------------------  ------------------------------------------------  Pool  Type  Devices     Free      Used     Total  ------------------------------------------------  vg00  lvm   3        3.99 GB  11.00 GB  14.99 GB  ------------------------------------------------  ----------------------------------------------------------------------------------  Volume          Pool  Volume size  FS      FS size       Free  Type    Mount point  ----------------------------------------------------------------------------------  /dev/vg00/lv00  vg00     11.00 GB  ext2   11.00 GB   10.31 GB  linear  /mnt  /dev/sda1               500.00 MB  xfs   496.67 MB  406.23 MB  part    /boot  /dev/sda3                47.50 GB  xfs    47.47 GB   43.87 GB  part    /  ---------------------------------------------------------------------------------- |