cServer部署RHCS集群

# 前提

存储lun映射到所有GFS2节点

关闭所有GFS2节点NetworkManager、iptables、selinux

配置本地yum源

注：以下涉及安装包如无特别说明，所有GFS2节点均需安装

文档所涉及IP及存储视现场环境替换

# 部署

1、发现存储

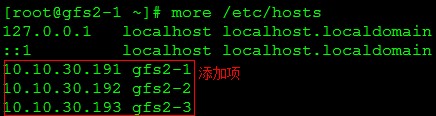
|  |
| --- |
| # yum install device-mapper-multipath –y  # cp /usr/share/doc/device-mapper-multipath-0.4.9/multipath.conf /etc/  #reboot |

2、修改各节点hostname

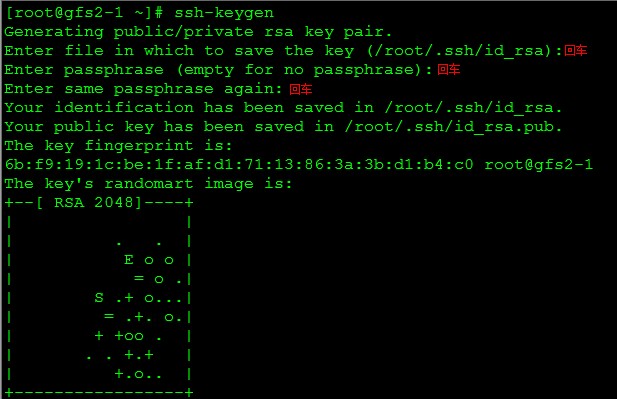
|  |
| --- |
| # vim /etc/sysconfig/network  修改HOSTNAME= |

3、配置ssh信任

注：此项在第一节点操作即可



|  |
| --- |
| [root@gfs2-1 ~]# scp /etc/hosts gfs2-2:/etc/  The authenticity of host 'gfs2-2 (10.10.30.192)' can't be established.  RSA key fingerprint is 0f:bd:2c:bf:eb:26:50:04:b4:e0:9c:51:a3:d4:a6:fc.  Are you sure you want to continue connecting (yes/no)? yes  Warning: Permanently added 'gfs2-2' (RSA) to the list of known hosts.  root@gfs2-2's password:  hosts 100% 218 0.2KB/s 00:00  [root@gfs2-1 ~]# scp /etc/hosts gfs2-3:/etc/  The authenticity of host 'gfs2-3 (10.10.30.193)' can't be established.  RSA key fingerprint is 0f:bd:2c:bf:eb:26:50:04:b4:e0:9c:51:a3:d4:a6:fc.  Are you sure you want to continue connecting (yes/no)? yes  Warning: Permanently added 'gfs2-3' (RSA) to the list of known hosts.  root@gfs2-3's password:  hosts 100% 218 0.2KB/s 00:00 |



|  |
| --- |
| [root@gfs2-1 ~]# cd /root/.ssh/  [root@gfs2-1 .ssh]# ll  total 12  -rw------- 1 root root 1675 Oct 31 13:10 id\_rsa  -rw-r--r-- 1 root root 393 Oct 31 13:10 id\_rsa.pub  -rw-r--r-- 1 root root 1564 Oct 31 13:07 known\_hosts  [root@gfs2-1 .ssh]# cp id\_rsa.pub authorized\_keys  [root@gfs2-1 .ssh]# scp -r /root/.ssh/ gfs2-2:/root/  root@gfs2-2's password:  authorized\_keys 100% 393 0.4KB/s 00:00  known\_hosts 100% 1564 1.5KB/s 00:00  id\_rsa 100% 1675 1.6KB/s 00:00  id\_rsa.pub 100% 393 0.4KB/s 00:00  [root@gfs2-1 .ssh]# scp -r /root/.ssh/ gfs2-3:/root/  root@gfs2-3's password:  authorized\_keys 100% 393 0.4KB/s 00:00  known\_hosts 100% 1564 1.5KB/s 00:00  id\_rsa 100% 1675 1.6KB/s 00:00  id\_rsa.pub 100% 393 0.4KB/s 00:00 |

测试，无需密码ssh登陆任一节点

|  |
| --- |
| [root@gfs2-1 .ssh]# ssh gfs2-2  Last login: Thu Oct 31 13:01:01 2013 from 10.10.60.30  [root@gfs2-2 ~]# ssh gfs2-3  Last login: Thu Oct 31 13:01:04 2013 from 10.10.60.30  [root@gfs2-3 ~]# |

4、部署集群所需rpm包

# yum install cman ricci gfs2-utils lvm2-cluster rgmanager –y

# for i in cman ricci clvmd gfs2;do chkconfig $i on;done

**注：如下文档中关键部分需与现场情况符合，同步此文件到各节点**

|  |
| --- |
| # more /etc/cluster/cluster.conf  # cat /etc/cluster/cluster.conf  <?xml version="1.0"?>  <cluster config\_version="18" name="vmware\_fence">  <clusternodes>  <clusternode name="gfs2-1" nodeid="1">  <fence>  <method name="Method">  <device action="reboot" name="vmware\_fence" port="gfs2-1" ssl="on" uuid="4236d7ab-effb-d141-4d0c-ad3b3f3cd8da"/>  </method>  </fence>  </clusternode>  <clusternode name="gfs2-2" nodeid="2">  <fence>  <method name="Method">  <device action="reboot" name="vmware\_fence" port="gfs2-2" ssl="on" uuid="4236b05e-c442-b601-a1cf-cdfc216a9ed0"/>  </method>  </fence>  </clusternode>  <clusternode name="gfs2-3" nodeid="1">  <fence>  <method name="Method">  <device action="reboot" name="vmware\_fence" port="gfs2-3" ssl="on" uuid="423688d6-3209-98b2-5f86-7c34115521fc"/>  </method>  </fence>  </clusternode>  </clusternodes>  <fencedevices>  <fencedevice action="reboot" agent="fence\_vmware\_soap" ipaddr="10.10.30.20" login="root" name="vmware\_fence" passwd="vmware"  />  </fencedevices>  </cluster> |

各节点设置ricci密码

# echo ricci:ricci|chpasswd

同步cluster.conf文件

|  |
| --- |
| [root@gfs2-1 ~]# ccs\_sync  You have not authenticated to the ricci daemon on gfs2-2  Password:  You have not authenticated to the ricci daemon on gfs2-3  Password:  You have not authenticated to the ricci daemon on gfs2-1  Password: |

5、格式化存储

注：在一节点操作即可，盘符视现场环境

|  |
| --- |
| [root@gfs2-1 ~]# pvcreate /dev/sdb1  Writing physical volume data to disk "/dev/sdb1"  Physical volume "/dev/sdb1" successfully created  [root@gfs2-1 ~]# vgcreate gfs2 /dev/sdb1  Volume group "gfs2" successfully created  [root@gfs2-1 ~]# vgdisplay  --- Volume group ---  VG Name gfs2  System ID  Format lvm2  Metadata Areas 1  Metadata Sequence No 1  VG Access read/write  VG Status resizable  MAX LV 0  Cur LV 0  Open LV 0  Max PV 0  Cur PV 1  Act PV 1  VG Size 100.00 GiB  PE Size 4.00 MiB  Total PE 25599  Alloc PE / Size 0 / 0  Free PE / Size ***25599 / 100.00 GiB***  VG UUID KdBZYD-qUH4-ElYY-CEOD-IOLF-lc1E-xcppaK    --- Volume group ---  VG Name VolGroup  System ID  Format lvm2  Metadata Areas 1  Metadata Sequence No 4  VG Access read/write  VG Status resizable  MAX LV 0  Cur LV 3  Open LV 3  Max PV 0  Cur PV 1  Act PV 1  VG Size 99.51 GiB  PE Size 4.00 MiB  Total PE 25474  Alloc PE / Size 25474 / 99.51 GiB  Free PE / Size 0 / 0  VG UUID 2uq8XX-Ctaj-AzSE-Regv-fKKN-Iu2l-HHWlBF    [root@gfs2-1 ~]# lvcreate -l ***25474*** gfs2 -n p1  Logical volume "p1" created    [root@gfs2-1 ~]#mkfs.gfs2 -p lock\_dlm -t Cluster:iscsi-gfs2 -j 10 /dev/mapper/gfs2-p1  This will destroy any data on /dev/mapper/gfs2-p1.  It appears to contain: symbolic link to `../dm-3'  Are you sure you want to proceed? [y/n] y  Device: /dev/mapper/gfs2-p1  Blocksize: 4096  Device Size 99.51 GB (26085376 blocks)  Filesystem Size: 99.51 GB (26085373 blocks)  Journals: 10  Resource Groups: 399  Locking Protocol: "lock\_dlm"  Lock Table: "Cluster:iscsi-gfs2"  UUID: 3f707fea-999c-0344-1b71-97a11f73b117 |

6、配置挂载

注：所有节点操作

#mkdir /gfs2

编辑/etc/fstab，添加如下

|  |
| --- |
| /dev/mapper/gfs2-p1 /gfs2 gfs2 defaults 0 0 |

7、启动集群

所有节点

#/etc/init.d/cman start

#/etc/init.d/clvmd start

#/etc/init.d/gfs2 start

|  |
| --- |
| [root@gfs2-1 ~]# df -Th  Filesystem Type Size Used Avail Use% Mounted on  /dev/mapper/VolGroup-lv\_root  ext4 20G 2.4G 17G 13% /  tmpfs tmpfs 3.9G 29M 3.9G 1% /dev/shm  /dev/sda1 ext4 485M 37M 423M 9% /boot  /dev/mapper/VolGroup-lv\_var ext4 71G 400M 67G 1% /var  /dev/mapper/gfs2-p1 gfs2 100G 4.3G 96G 5% /gfs2 |

8、测试写入

|  |
| --- |
| [root@gfs2-1 ~]# time dd if=/dev/zero of=/gfs2/file1 bs=1024M count=1  1+0 records in  1+0 records out  1073741824 bytes (1.1 GB) copied, 1.67493 s, 641 MB/s  real 0m1.875s  user 0m0.000s  sys 0m1.699s |

# 测试

1、其中 一台节点执行# fence\_node node\*，对象节点会关闭

2、任何 一台节点重启或断开，不影响另一台节点对GFS文件系统的访问

3、其中 一台节点写入文件到共享存储，其他节点可查看到