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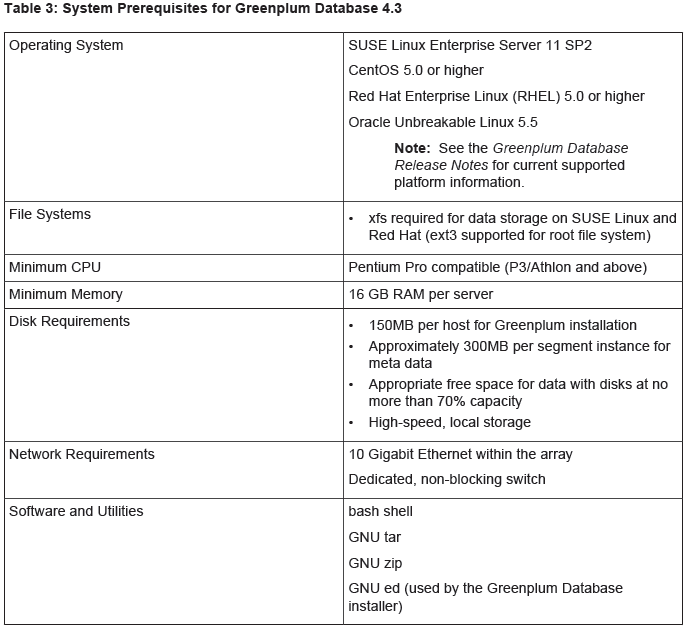
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**greenplum集群**

# 系统需求:

****

# 环境:

**CentOS7.2.1511**

**greenplum-4.3.9.0**

**本次部署包括master\*1,segment\*3**

greenplum-master: 172.25.178.50

greenplum-segment1: 172.25.155.51

greenplum-segment2: 172.25.155.52

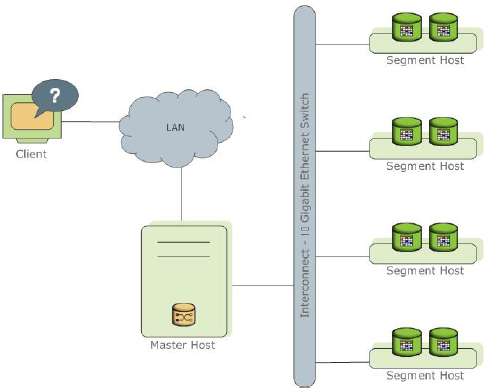
greenplum-segment3: 172.25.155.53

gpadmin初始密码gpassword

greenplum存储路径

/mnt/data/greenplum/primary

/mnt/data/greenplum/master



# 一.系统初始化

**提示: 在所有greenplum节点(master,segment)上操作**

## 1.禁用selinux

修改/etc/sysconfig/selinux

SELINUX=disabled

## 2.禁用防火墙

systemctl stop iptables

systemctl disable iptables

iptables-save >/etc/sysconfig/iptables

systemctl stop firewalld

systemctl disable firewalld

## 3.内核参数

cat >>/etc/sysctl.conf <<EOF

kernel.shmmax = 500000000

kernel.shmmni = 4096

kernel.shmall = 4000000000

kernel.sem = 250 512000 100 2048

kernel.sysrq = 1

kernel.core\_uses\_pid = 1

kernel.msgmnb = 65536

kernel.msgmax = 65536

kernel.msgmni = 2048

net.ipv4.tcp\_syncookies = 1

net.ipv4.ip\_forward = 0

net.ipv4.conf.default.accept\_source\_route = 0

net.ipv4.tcp\_tw\_recycle = 1

net.ipv4.tcp\_max\_syn\_backlog = 4096

net.ipv4.conf.all.arp\_filter = 1

net.ipv4.ip\_local\_port\_range = 1025 65535

net.core.netdev\_max\_backlog = 10000

net.core.rmem\_max = 2097152

net.core.wmem\_max = 2097152

vm.overcommit\_memory = 2

EOF

## 4.资源限制

cat >>/etc/security/limits.conf <<EOF

\* soft nofile 65536

\* hard nofile 65536

\* soft nproc 131072

\* hard nproc 131072

EOF

cat >>/etc/security/limits.d/**20**-nproc.conf <<EOF

\* soft nofile 65536

\* hard nofile 65536

\* soft nproc 131072

\* hard nproc 131072

EOF

## 5.xfs文件系统挂载参数(/etc/fstab)

rw,noatime,inode64,allocsize=16m

## 6.磁盘I/O策略(deadline)

echo deadline > /sys/block/sdb/queue/scheduler

### i.centos7(grub2)

grubby --update-kernel=ALL --args="elevator=deadline"

**提示:** grubby会自动将内核参数添加到grub2配置文件对应的 linux16行末

### ii.centos6(/boot/grub/grub.conf)

kernel /vmlinuz-2.6.18-274.3.1.el5 ro root=LABEL=/

elevator=deadline crashkernel=128M@16M quiet console=tty1

console=ttyS1,115200 panic=30 transparent\_hugepage=never

initrd /initrd-2.6.18-274.3.1.el5.img

## 7.磁盘read-ahead

/sbin/blockdev --setra 16384 /dev/sdb

## 8./etc/hosts

172.25.178.50 greenplum-master

172.25.155.51 greenplum-segment1

172.25.155.52 greenplum-segment2

172.25.155.53 greenplum-segment3

## 9.禁用透明大页

echo never > /sys/kernel/mm/transparent\_hugepage/enabled

### i.centos7(grub2)

grubby --update-kernel=ALL --args="transparent\_hugepage=never"

### ii.centos6(/boot/grub/grub.conf)

kernel /vmlinuz-2.6.18-274.3.1.el5 ro root=LABEL=/

elevator=deadline crashkernel=128M@16M quiet console=tty1

console=ttyS1,115200 panic=30 transparent\_hugepage=never

initrd /initrd-2.6.18-274.3.1.el5.img

## 10.禁用IPC object removal

修改/etc/systemd/logind.conf [Login]段落

RemoveIPC=no

systemctl restart systemd-logind

## 11.创建greenplum管理员

useradd -r -m gpadmin

echo 'gpassword'|passwd --stdin gpadmin

## 12.安装依赖包

**yum -y install ed**

**注意:** greenplum依赖ed，否则无法初始化成功

## 13.系统重启

重启后检查相关内核参数是否生效

# 二.安装greenplum master&segment

**提示: 在master节点上操作**

## 1.master,segment ssh key认证

提前先在master节点上做好各节点的ssh key认证

su - root

ssh-keygen -t rsa -N '' -f ~/.ssh/id\_rsa -q -b 2048

ssh-copy-id root@greenplum-master

ssh-copy-id root@greenplum-segment1

ssh-copy-id root@greenplum-segment2

ssh-copy-id root@greenplum-segment3

su - gpadmin

ssh-keygen -t rsa -N '' -f ~/.ssh/id\_rsa -q -b 2048

ssh-copy-id gpadmin@greenplum-master

ssh-copy-id gpadmin@greenplum-segment1

ssh-copy-id gpadmin@greenplum-segment2

ssh-copy-id gpadmin@greenplum-segment3

## 2.解压安装greenplum

su - root

unzip greenplum-db-appliance-4.3.9.0-build-1-RHEL5-x86\_64.zip

cat >hostfile <<EOF

greenplum-master

greenplum-segment1

greenplum-segment2

greenplum-segment3

EOF

./greenplum-db-appliance-4.3.9.0-build-1-RHEL5-x86\_64.bin

[root@greenplum-master ~]# ./greenplum-db-appliance-4.3.9.0-build-1-RHEL5-x86\_64.bin

======================================================================

Greenplum DB

Appliance Automated Installer

----------------------------------------------------------------------

Timestamp ......... : Wed Oct 26 10:28:04 UTC 2016

Product Installer.. : greenplum-db-appliance-4.3.9.0-build-1-RHEL5-x86\_64.bin

Product Version ... : 4.3.9.0

Build Number ...... :

Install Dir ....... : /usr/local/GP-4.3.9.0

Install Log file .. : /root/install-261016-102804.log

======================================================================

Creating /usr/local/GP-4.3.9.0

======================================================================

Executing Post Appliance Installation Steps

======================================================================

Executing: source /usr/local/GP-4.3.9.0/greenplum\_path.sh

Executing: gpseginstall --file hostfile -c csv 2>&1 | tee -a /root/install-261016-102804.log

20161026:10:28:11:014995 gpseginstall:greenplum-master:root-[INFO]:-Installation Info:

link\_name greenplum-db

binary\_path /usr/local/GP-4.3.9.0

binary\_dir\_location /usr/local

binary\_dir\_name GP-4.3.9.0

20161026:10:28:11:014995 gpseginstall:greenplum-master:root-[INFO]:-check cluster password access

20161026:10:28:13:014995 gpseginstall:greenplum-master:root-[INFO]:-de-duplicate hostnames

20161026:10:28:13:014995 gpseginstall:greenplum-master:root-[INFO]:-master hostname: greenplum-master

20161026:10:28:14:014995 gpseginstall:greenplum-master:root-[INFO]:-chown -R gpadmin:gpadmin /usr/local/greenplum-db

20161026:10:28:14:014995 gpseginstall:greenplum-master:root-[INFO]:-chown -R gpadmin:gpadmin /usr/local/GP-4.3.9.0

20161026:10:28:14:014995 gpseginstall:greenplum-master:root-[INFO]:-rm -f /usr/local/GP-4.3.9.0.tar; rm -f /usr/local/GP-4.3.9.0.tar.gz

20161026:10:28:14:014995 gpseginstall:greenplum-master:root-[INFO]:-cd /usr/local; tar cf GP-4.3.9.0.tar GP-4.3.9.0

20161026:10:28:16:014995 gpseginstall:greenplum-master:root-[INFO]:-gzip /usr/local/GP-4.3.9.0.tar

20161026:10:28:43:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: mkdir -p /usr/local

20161026:10:28:44:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: rm -rf /usr/local/GP-4.3.9.0

20161026:10:28:45:014995 gpseginstall:greenplum-master:root-[INFO]:-scp software to remote location

20161026:10:28:49:014995 gpseginstall:greenplum-master:root-[INFO]:-remote com mand: gzip -f -d /usr/local/GP-4.3.9.0.tar.gz

20161026:10:28:54:014995 gpseginstall:greenplum-master:root-[INFO]:-md5 check on remote location

20161026:10:28:56:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: cd /usr/local; tar xf GP-4.3.9.0.tar

20161026:10:28:57:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: rm -f /usr/local/GP-4.3.9.0.tar

20161026:10:28:58:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: cd /usr/local; rm -f greenplum-db; ln -fs GP-4.3.9.0 greenplum-db

20161026:10:28:59:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: chown -R gpadmin:gpadmin /usr/local/greenplum-db

20161026:10:29:00:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: chown -R gpadmin:gpadmin /usr/local/GP-4.3.9.0

20161026:10:29:01:014995 gpseginstall:greenplum-master:root-[INFO]:-rm -f /usr/local/GP-4.3.9.0.tar.gz

20161026:10:29:01:014995 gpseginstall:greenplum-master:root-[INFO]:-version string on master: gpssh version 4.3.9.0 build 1

20161026:10:29:01:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: . /usr/local/greenplum-db/./greenplum\_path.sh; /usr/local/greenplum-db/./bin/gpssh --version

20161026:10:29:02:014995 gpseginstall:greenplum-master:root-[INFO]:-remote command: . /usr/local/GP-4.3.9.0/greenplum\_path.sh; /usr/local/GP-4.3.9.0/bin/gpssh --version

20161026:10:29:09:014995 gpseginstall:greenplum-master:root-[INFO]:-**SUCCESS** -- Requested commands completed

======================================================================

Installation complete

======================================================================

安装完成后，segment节点上会多出greenplum的安装目录

C:\Users\liujun02\AppData\Local\YNote\data\iliujun_live@163.com\dd8fec79f51b4d2ca8a7a2698f37c49d\截图.png

# 三.确认安装

**提示: 在master节点上操作**

su - gpadmin

cat >hostfile\_exkeys <<EOF

greenplum-master

greenplum-segment1

greenplum-segment2

greenplum-segment3

EOF

source /usr/local/greenplum-db/greenplum\_path.sh

gpssh -f hostfile\_exkeys -e ls -l $GPHOME

如果所有节点安装正常，则无需密码即可显示$GPHOME

**提示:** 如果期间有提示输入密码，可以通过以下命令来再次ssh key认证

gpssh-exkeys -f hostfile\_exkeys

# 四.greenplum存储路径

**提示: 在master节点上操作**

## 1.master

su - root

mkdir -p /mnt/data/greenplum/{primary,master}

chown -R gpadmin: /mnt/data/greenplum

**提示:** master不存放user data，只存放system catalog tables and system metadata，因此空间没必要和segment一样那么大，合理归化就行

## 2.segment

su - root

cat >hostfile\_gpssh\_segonly <<EOF

greenplum-segment1

greenplum-segment2

greenplum-segment3

EOF

source /usr/local/greenplum-db/greenplum\_path.sh

gpssh -f hostfile\_gpssh\_segonly -e 'mkdir -p /mnt/data/greenplum/{primary,mirror}'

gpssh -f hostfile\_gpssh\_segonly -e 'chown -R gpadmin: /mnt/data/greenplum'

**提示:** 无需登录到segment主机，在master上即可完成

# 五.初始化db

**提示: 在master节点上操作**

## 1.创建初始化主机配置文件hostfile\_gpinitsystem

su - gpadmin

cat >hostfile\_gpinitsystem <<EOF

greenplum-segment1

greenplum-segment2

greenplum-segment3

EOF

**注意:** 这里仅填入segment节点

## 2.创建初始化配置文件gpinitsystem\_config

su - gpadmin

source /usr/local/GP-4.3.9.0/greenplum\_path.sh

mkdir gpconfigs

cp $GPHOME/docs/cli\_help/gpconfigs/gpinitsystem\_config /home/gpadmin/gpconfigs/gpinitsystem\_config

修改项

**ARRAY\_NAME**="ULE Greenplum DW"

**MASTER\_HOSTNAME**=greenplum-master

declare -a **DATA\_DIRECTORY**=(/mnt/data/greenplum/primary)

**MASTER\_DIRECTORY**=/mnt/data/greenplum/master

## 3.greenplum初始化

su - gpadmin

source /usr/local/GP-4.3.9.0/greenplum\_path.sh

gpinitsystem -c gpconfigs/gpinitsystem\_config -h hostfile\_gpinitsystem

中间会提示是否继续，按y/Y

[gpadmin@greenplum-master ~]$ gpinitsystem -c gpconfigs/gpinitsystem\_config -h hostfile\_gpinitsystem

20161027:05:35:10:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checking configuration parameters, please wait...

20161027:05:35:10:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Reading Greenplum configuration file gpconfigs/gpinitsystem\_config

20161027:05:35:10:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Locale has not been set in gpconfigs/gpinitsystem\_config, will set to default value

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Locale set to en\_US.utf8

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-No DATABASE\_NAME set, will exit following template1 updates

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-MASTER\_MAX\_CONNECT not set, will set to default value 250

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checking configuration parameters, Completed

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Commencing multi-home checks, please wait...

...

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Configuring build for standard array

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Commencing multi-home checks, Completed

20161027:05:35:11:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Building primary segment instance array, please wait...

...

20161027:05:35:13:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checking Master host

20161027:05:35:13:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checking new segment hosts, please wait...

...

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checking new segment hosts, Completed

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Greenplum Database Creation Parameters

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:---------------------------------------

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master Configuration

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:---------------------------------------

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master instance name = ULE Greenplum DW

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master hostname = greenplum-master

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master port = 5432

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master instance dir = /mnt/data/greenplum/master/gpseg-1

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master LOCALE = en\_US.utf8

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Greenplum segment prefix = gpseg

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master Database =

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master connections = 250

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master buffers = 128000kB

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Segment connections = 750

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Segment buffers = 128000kB

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Checkpoint segments = 8

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Encoding = UNICODE

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Postgres param file = Off

20161027:05:35:17:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Initdb to be used = /usr/local/greenplum-db/./bin/initdb

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-GP\_LIBRARY\_PATH is = /usr/local/greenplum-db/./lib

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Ulimit check = Passed

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Array host connect type = Single hostname per node

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master IP address [1] = ::1

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master IP address [2] = 172.25.178.50

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Master IP address [3] = fe80::f816:3eff:fe6a:623

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Standby Master = Not Configured

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Primary segment # = 1

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Total Database segments = 3

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Trusted shell = ssh

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Number segment hosts = 3

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Mirroring config = OFF

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:----------------------------------------

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Greenplum Primary Segment Configuration

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:----------------------------------------

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-greenplum-segment1 /mnt/data/greenplum/primary/gpseg0 40000 2 0

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-greenplum-segment2 /mnt/data/greenplum/primary/gpseg1 40000 3 1

20161027:05:35:18:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-greenplum-segment3 /mnt/data/greenplum/primary/gpseg2 40000 4 2

Continue with Greenplum creation Yy/Nn>

y

20161027:05:35:24:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Building the Master instance database, please wait...

20161027:05:36:16:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Starting the Master in admin mode

20161027:05:36:21:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Commencing parallel build of primary segment instances

20161027:05:36:21:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Spawning parallel processes batch [1], please wait...

...

20161027:05:36:22:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Waiting for parallel processes batch [1], please wait...

............................................................................

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:------------------------------------------------

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Parallel process exit status

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:------------------------------------------------

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Total processes marked as completed = 3

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Total processes marked as killed = 0

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Total processes marked as failed = 0

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:------------------------------------------------

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Deleting distributed backout files

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Removing back out file

20161027:05:37:38:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-No errors generated from parallel processes

20161027:05:37:39:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Restarting the Greenplum instance in production mode

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Starting gpstop with args: -a -i -m -d /mnt/data/greenplum/master/gpseg-1

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Gathering information and validating the environment...

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Obtaining Greenplum Master catalog information

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Obtaining Segment details from master...

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Greenplum Version: 'postgres (Greenplum Database) 4.3.9.0 build 1'

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-There are 0 connections to the database

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Commencing Master instance shutdown with mode='immediate'

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Master host=greenplum-master

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Commencing Master instance shutdown with mode=immediate

20161027:05:37:39:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Master segment instance directory=/mnt/data/greenplum/master/gpseg-1

20161027:05:37:40:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Attempting forceful termination of any leftover master process

20161027:05:37:40:008319 gpstop:greenplum-master:gpadmin-[INFO]:-Terminating processes for segment /mnt/data/greenplum/master/gpseg-1

20161027:05:37:40:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Starting gpstart with args: -a -d /mnt/data/greenplum/master/gpseg-1

20161027:05:37:40:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Gathering information and validating the environment...

20161027:05:37:40:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Greenplum Binary Version: 'postgres (Greenplum Database) 4.3.9.0 build 1'

20161027:05:37:40:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Greenplum Catalog Version: '201310150'

20161027:05:37:40:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Starting Master instance in admin mode

20161027:05:37:41:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Obtaining Greenplum Master catalog information

20161027:05:37:41:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Obtaining Segment details from master...

20161027:05:37:41:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Setting new master era

20161027:05:37:41:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Master Started...

20161027:05:37:41:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Shutting down master

20161027:05:37:43:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Commencing parallel segment instance startup, please wait...

..

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Process results...

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:- Successful segment starts = 3

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:- Failed segment starts = 0

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:- Skipped segment starts (segments are marked down in configuration) = 0

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Successfully started 3 of 3 segment instances

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:05:37:45:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Starting Master instance greenplum-master directory /mnt/data/greenplum/master/gpseg-1

20161027:05:37:46:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Command pg\_ctl reports Master greenplum-master instance active

20161027:05:37:46:008406 gpstart:greenplum-master:gpadmin-[INFO]:-No standby master configured. skipping...

20161027:05:37:46:008406 gpstart:greenplum-master:gpadmin-[INFO]:-Database successfully started

20161027:05:37:46:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Completed restart of Greenplum instance in production mode

20161027:05:37:46:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Loading gp\_toolkit...

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Scanning utility log file for any warning messages

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Log file scan check passed

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Greenplum Database instance successfully created

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-------------------------------------------------------

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-To complete the environment configuration, please

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-update gpadmin .bashrc file with the following

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-1. Ensure that the greenplum\_path.sh file is sourced

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-2. Add "export MASTER\_DATA\_DIRECTORY=/mnt/data/greenplum/master/gpseg-1"

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:- to access the Greenplum scripts for this instance:

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:- or, use -d /mnt/data/greenplum/master/gpseg-1 option for the Greenplum scripts

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:- Example gpstate -d /mnt/data/greenplum/master/gpseg-1

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Script log file = /home/gpadmin/gpAdminLogs/gpinitsystem\_20161027.log

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-To remove instance, run gpdeletesystem utility

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-To initialize a Standby Master Segment for this Greenplum instance

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Review options for gpinitstandby

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-------------------------------------------------------

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-The Master /mnt/data/greenplum/master/gpseg-1/pg\_hba.conf post gpinitsystem

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-has been configured to allow all hosts within this new

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-array to intercommunicate. Any hosts external to this

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-new array must be explicitly added to this file

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-Refer to the Greenplum Admin support guide which is

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-located in the /usr/local/greenplum-db/./docs directory

20161027:05:37:48:060275 gpinitsystem:greenplum-master:gpadmin-[INFO]:-------------------------------------------------------

一切顺利的话，db正常初始化成功

## 4.设置greenplum环境变量

su - gpadmin

cat >>.bashrc <<EOF

source /usr/local/greenplum-db/greenplum\_path.sh

export MASTER\_DATA\_DIRECTORY=/mnt/data/greenplum/master/**gpseg-1**

EOF

source .bashrc

**提示:** greenplum配置文件都放在/mnt/data/greenplum/master/**gpseg-1**目录下

**5.确认greenplum状态**

su - gpadmin

gpstate -s

[gpadmin@greenplum-master ~]$ gpstate -s

20161027:07:08:02:011423 gpstate:greenplum-master:gpadmin-[INFO]:-Starting gpstate with args: -s

20161027:07:08:02:011423 gpstate:greenplum-master:gpadmin-[INFO]:-local Greenplum Version: 'postgres (Greenplum Database) 4.3.9.0 build 1'

20161027:07:08:02:011423 gpstate:greenplum-master:gpadmin-[INFO]:-master Greenplum Version: 'PostgreSQL 8.2.15 (Greenplum Database 4.3.9.0 build 1) on x86\_64-unknown-linux-gnu, compiled by GCC gcc (GCC) 4.4.2 compiled on Aug 8 2016 05:36:26'

20161027:07:08:02:011423 gpstate:greenplum-master:gpadmin-[INFO]:-Obtaining Segment details from master...

20161027:07:08:02:011423 gpstate:greenplum-master:gpadmin-[INFO]:-Gathering data from segments...

.

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:--Master Configuration & Status

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master host = greenplum-master

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master postgres process ID = 8467

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master data directory = /mnt/data/greenplum/master/gpseg-1

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master port = 5432

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master current role = dispatch

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Greenplum initsystem version = 4.3.9.0 build 1

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Greenplum current version = PostgreSQL 8.2.15 (Greenplum Database 4.3.9.0 build 1) on x86\_64-unknown-linux-gnu, compiled by GCC gcc (GCC) 4.4.2 compiled on Aug 8 2016 05:36:26

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Postgres version = 8.2.15

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Master standby = No master standby configured

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-Segment Instance Status Report

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Segment Info

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Hostname = greenplum-segment1

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Address = greenplum-segment1

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Datadir = /mnt/data/greenplum/primary/gpseg0

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Port = 40000

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Status

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- PID = 7362

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Configuration reports status as = Up

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Database status = Up

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Segment Info

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Hostname = greenplum-segment2

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Address = greenplum-segment2

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Datadir = /mnt/data/greenplum/primary/gpseg1

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Port = 40000

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Status

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- PID = 6473

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Configuration reports status as = Up

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Database status = Up

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:-----------------------------------------------------

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Segment Info

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Hostname = greenplum-segment3

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Address = greenplum-segment3

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Datadir = /mnt/data/greenplum/primary/gpseg2

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Port = 40000

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Status

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- PID = 5830

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Configuration reports status as = Up

20161027:07:08:03:011423 gpstate:greenplum-master:gpadmin-[INFO]:- Database status = Up

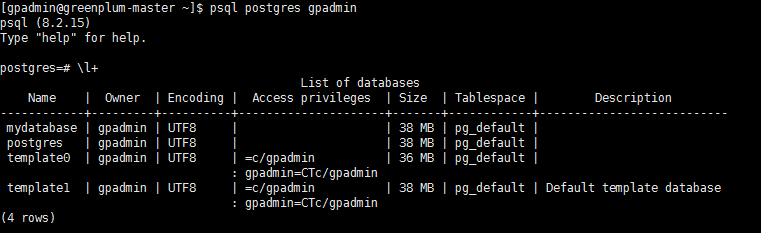
**提示:** 启动和停止 gpstart|gpstop

## 6.建库

su - gpadmin

psql postgres gpadmin -c 'CREATE DATABASE mydatbase'

\+



psql postgres gpadmin -c 'DROP DATABASE mydatbase'

# 六.配置ntp

**提示: 在所有greenplum节点(master,segment)上操作**

su - root

yum -y install ntpdate

echo "\*/10 \* \* \* \* /usr/sbin/ntpdate 172.25.130.31" >>/var/spool/cron/root

# 补充:

## 一.oracle兼容函数

**安装**

su - gpadmin

source /usr/local/greenplum-db/greenplum\_path.sh

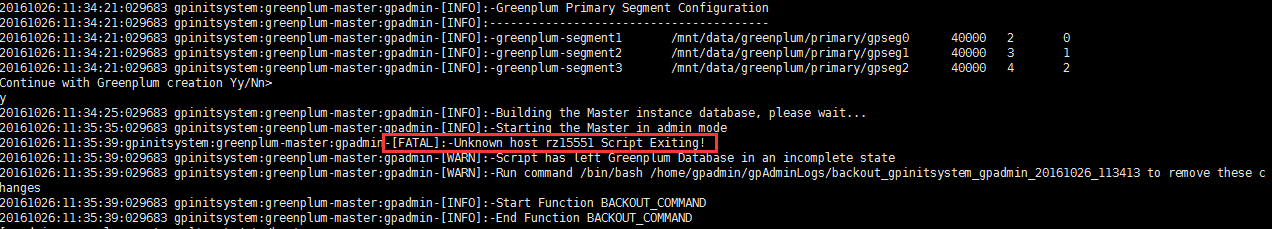
psql -d testdb -f $GPHOME/share/postgresql/contrib/orafunc.sql

**卸载**

$GPHOME/share/postgresql/contrib/uninstall\_orafunc.sql

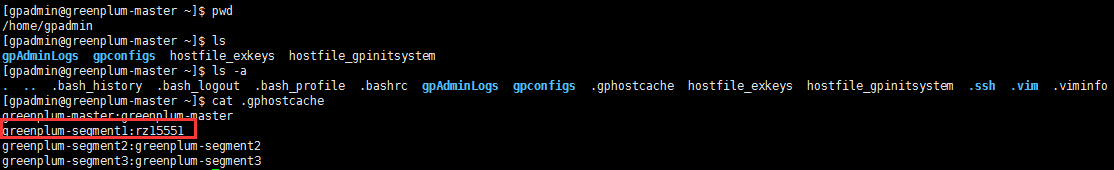
# 附录: greenplum初始化报错

## 报错1: UNKOWN\_HOST



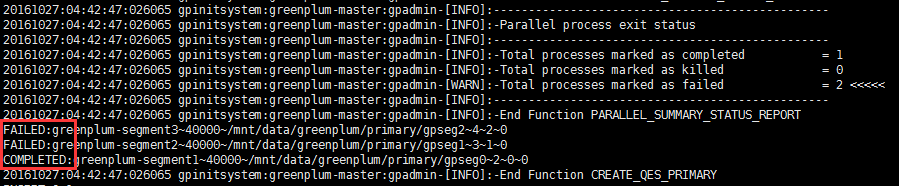
**原因:**

.gphostcache缓存了旧的副本，删除即可



## 报错2: segment初始化失败

3个segment中只有segment1成功，其它两失败



**原因:**

环境差异，因为segment2,segment3漏装了ed软件包