

CentOS 6.3下PostgreSQL 的安装与配置

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B. yum 安装

1. 将刚才安装的PostgreSQL 卸载

//停止PostgreSQL服务

```
# /etc/init.d/postgresql-9.2 stop
```

```
[root@TS-DEV ~]# /etc/init.d/postgresql-9.2 stop
Stopping postgresql-9.2 service: [ OK ]
[root@TS-DEV ~]#
```

//查看已安装的包

```
# rpm -qa|grep postgres
```

```
[root@TS-DEV data]# rpm -qa|grep postgres
postgresql92-server-9.2.4-1PGDG.rhel6.i686
postgresql92-libs-9.2.4-1PGDG.rhel6.i686
postgresql92-contrib-9.2.4-1PGDG.rhel6.i686
postgresql92-9.2.4-1PGDG.rhel6.i686
[root@TS-DEV data]#
```

//卸载

```
# rpm -e postgresql92-server-9.2.4-1PGDG.rhel6.i686
```

```
# rpm -e postgresql92-contrib-9.2.4-1PGDG.rhel6.i686
```

```
# rpm -e postgresql92-9.2.4-1PGDG.rhel6.i686
```

```
# rpm -e postgresql92-libs-9.2.4-1PGDG.rhel6.i686
```

```
[root@TS-DEV data]# rpm -e postgresql92-server-9.2.4-1PGDG.rhel6.i686
[root@TS-DEV data]# rpm -e postgresql92-contrib-9.2.4-1PGDG.rhel6.i686
[root@TS-DEV data]# rpm -e postgresql92-9.2.4-1PGDG.rhel6.i686
[root@TS-DEV data]# rpm -e postgresql92-libs-9.2.4-1PGDG.rhel6.i686
[root@TS-DEV data]#
You have new mail in /var/spool/mail/root
[root@TS-DEV data]# rpm -qa|grep postgresql
[root@TS-DEV data]#
```

2. yum 安装

如果是默认yum 安装的话，会安装较低版本的PostgreSQL 8.4，这不符合我们的要求。

```
[root@TS-DEV data]# yum install postgresql
Loaded plugins: fastestmirror, refresh-packagekit
Loading mirror speeds from cached hostfile
 * base: mirrors.btte.net
 * epel: ftp.riken.jp
 * extras: mirrors.btte.net
 * rpmforge: ftp.riken.jp
 * updates: mirrors.btte.net
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package postgresql.x86_64 0:8.4.13-1.el6_3 will be installed
--> Processing Dependency: postgresql-libs(x86-64) = 8.4.13-1.el6_3 for package: postgresql-8.4.13-1.el6_3.x86_64
--> Processing Dependency: libpq.so.5()(64bit) for package: postgresql-8.4.13-1.el6_3.x86_64
--> Running transaction check
--> Package postgresql-libs.x86_64 0:8.4.13-1.el6_3 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package Arch Version Repository Size
=====================================================================================================================================
Installing:
 postgresql x86_64 8.4.13-1.el6_3 base 2.8 M
Installing for dependencies:
 postgresql-libs x86_64 8.4.13-1.el6_3 base 200 k
Transaction Summary
-----
Install 2 Package(s)
Total download size: 3.0 M
Installed size: 15 M
Is this ok [y/N]: n
```

我们使用PostgreSQL Yum Repository 来安装最新版本的PostgreSQL。

2.1 安装PostgreSQL yum repository

```
# rpm -i http://yum.postgresql.org/9.2/RedHat/rhel-6-x86_64/pgdg-redhat92-9.2-7.noarch.rpm
```

```
[root@TS-DEV data]# rpm -i http://yum.postgresql.org/9.2/redhat/rhel-6-x86_64/pgdg-redhat92-9.2-7.noarch.rpm
[root@TS-DEV data]#
```

2.2 安装新版本PostgreSQL

```
# yum install postgresql92-server postgresql92-contrib
```

```
[root@TS-DEV data]# yum install postgresql92-server postgresql92-contrib
Loaded plugins: fastestmirror, refresh-packagekit
Repository pgdg92 is listed more than once in the configuration
Repository pgdg92-source is listed more than once in the configuration
Loading mirror speeds from cached hostfile
 * base: mirrors.bttc.net
 * epel: ftp.riken.jp
 * extras: mirrors.bttc.net
 * rpmforge: ftp.riken.jp
 * updates: mirrors.bttc.net
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package postgresql92-contrib.x86_64 0:9.2.4-1PGDG.rhel6 will be installed
--> Processing Dependency: postgresql92 = 9.2.4 for package: postgresql92-contrib-9.2.4-1PGDG.rhel6.x86_64
--> Processing Dependency: libpq.so.5()(64bit) for package: postgresql92-contrib-9.2.4-1PGDG.rhel6.x86_64
--> Package postgresql92-server.x86_64 0:9.2.4-1PGDG.rhel6 will be installed
--> Running transaction check
--> Package postgresql92.x86_64 0:9.2.4-1PGDG.rhel6 will be installed
--> Package postgresql92-libs.x86_64 0:9.2.4-1PGDG.rhel6 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====================================================================================================================================
Package                               Arch                               Version                               Repository                               Size
=====================================================================================================================================
Installing:
postgresql92-contrib                 x86_64                             9.2.4-1PGDG.rhel6                     pgdg92                                   435 k
postgresql92-server                  x86_64                             9.2.4-1PGDG.rhel6                     pgdg92                                   3.8 M
Installing for dependencies:
postgresql92                         x86_64                             9.2.4-1PGDG.rhel6                     pgdg92                                   970 k
postgresql92-libs                    x86_64                             9.2.4-1PGDG.rhel6                     pgdg92                                   185 k
Transaction Summary
-----
Install      4 Package(s)

Total download size: 5.4 M
Installed size: 23 M
Is this ok [y/N]:
```

2.3 查看安装

```
[root@TS-DEV data]# rpm -qa|grep postgresql
postgresql92-server-9.2.4-1PGDG.rhel6.x86_64
postgresql92-libs-9.2.4-1PGDG.rhel6.x86_64
postgresql92-contrib-9.2.4-1PGDG.rhel6.x86_64
postgresql92-9.2.4-1PGDG.rhel6.x86_64
[root@TS-DEV data]#
```

3. 初始化并启动数据库

```
[root@TS-DEV data]# /etc/init.d/postgresql-9.2 initdb
Initializing database: [ OK ]
```

```
[root@TS-DEV data]# /etc/init.d/postgresql-9.2 start
Starting postgresql-9.2 service: [ OK ]
[root@TS-DEV data]#
```

4. 测试

```
[root@TS-DEV data]# /etc/init.d/postgresql-9.2 start
Starting postgresql-9.2 service: [ OK ]
[root@TS-DEV data]# su - postgres
-bash-4.1$ psql -l
```

Name	Owner	Encoding	Collate	Ctype	Access privileges
postgres	postgres	UTF8	en_US.UTF-8	en_US.UTF-8	
template0	postgres	UTF8	en_US.UTF-8	en_US.UTF-8	=c/postgres + postgres=CTc/postgres
template1	postgres	UTF8	en_US.UTF-8	en_US.UTF-8	=c/postgres + postgres=CTc/postgres

```
(3 rows)
-bash-4.1$
```

其他步骤如A方式。

C. 源码包安装

1. 下载PostgreSQL 源码包

```
# wget http://ftp.postgresql.org/pub/source/v9.2.4/postgresql-9.2.4.tar.bz2
```

2. 解压源码包

```
# tar xjf postgresql-9.2.4.tar.bz2
```

3. 进入解压后的目录

```
# cd postgresql-9.2.4
```

```
[root@TS-DEV ~]# cd postgresql-9.2.4
[root@TS-DEV postgresql-9.2.4]# ll
total 2376
-rw-r--r-- 1 1107 1107 385 Apr 2 2013 aclocal.m4
drwxrwxrwx 2 1107 1107 4096 Apr 2 2013 config
-rwxr-xr-x 1 1107 1107 866282 Apr 2 2013 configure
-rw-r--r-- 1 1107 1107 63665 Apr 2 2013 configure.in
drwxrwxrwx 53 1107 1107 4096 Apr 2 2013 contrib
-rw-r--r-- 1 1107 1107 1192 Apr 2 2013 COPYRIGHT
drwxrwxrwx 3 1107 1107 4096 Apr 2 2013 doc
-rw-r--r-- 1 1107 1107 3749 Apr 2 2013 GNUmakefile.in
-rw-r--r-- 1 1107 1107 1383212 Apr 2 2013 HISTORY
-rw-r--r-- 1 1107 1107 76825 Apr 2 2013 INSTALL
-rw-r--r-- 1 1107 1107 1489 Apr 2 2013 Makefile
-rw-r--r-- 1 1107 1107 1284 Apr 2 2013 README
drwxrwxrwx 14 1107 1107 4096 Apr 2 2013 src
[root@TS-DEV postgresql-9.2.4]#
```

4. 查看INSTALL 文件

INSTALL 文件中Short Version 部分解释了如何安装PostgreSQL 的命令，Requirements 部分描述了安装PostgreSQL 所依赖的lib，比较长，先configure 试一下，如果出现error，那么需要检查是否满足了Requirements 的要求。

```
PostgreSQL Installation from Source Code

This document describes the installation of PostgreSQL using the source
code distribution. (If you are installing a pre-packaged distribution,
such as an RPM or Debian package, ignore this document and read the
packager's instructions instead.)

Short Version

./configure
gmake
su
gmake install
adduser postgres
mkdir /usr/local/pgsql/data
chown postgres /usr/local/pgsql/data
su - postgres
/usr/local/pgsql/bin/initdb -D /usr/local/pgsql/data
/usr/local/pgsql/bin/postgres -D /usr/local/pgsql/data >logfile 2>&1 &
/usr/local/pgsql/bin/createdb test
/usr/local/pgsql/bin/psql test

The long version is the rest of this document.

Requirements

In general, a modern unix-compatible platform should be able to run
PostgreSQL. The platforms that had received specific testing at the
time of release are listed in the section called Supported Platforms
below. In the "doc" subdirectory of the distribution there are several
platform-specific FAQ documents you might wish to consult if you are
having trouble.
```

5. 开始编译安装PostgreSQL 数据库。

```
[root@TS-DEV postgresql-9.2.4]# ./configure
```



```

config.status: creating GNUMakefile
config.status: creating src/Makefile.global
config.status: creating src/include/pg_config.h
config.status: src/include/pg_config.h is unchanged
config.status: creating src/interfaces/ecpg/include/ecpg_config.h
config.status: src/interfaces/ecpg/include/ecpg_config.h is unchanged
config.status: linking src/backend/port/tas/dummy.s to src/backend/port/tas.s
config.status: linking src/backend/port/dynloader/linux.c to src/backend/port/dynloader.c
config.status: linking src/backend/port/sysv_sema.c to src/backend/port/pg_sema.c
config.status: linking src/backend/port/sysv_shmem.c to src/backend/port/pg_shmem.c
config.status: linking src/backend/port/unix_latch.c to src/backend/port/pg_latch.c
config.status: linking src/backend/port/dynloader/linux.h to src/include/dynloader.h
config.status: linking src/include/port/linux.h to src/include/pg_config_os.h
config.status: linking src/makefiles/Makefile.linux to src/Makefile.port
[root@TS-DEV postgresql-9.2.4]#

```

configure 成功，无错误。

6. 执行gmake

```
[root@TS-DEV postgresql-9.2.4]# gmake
```

```

gmake[3]: Leaving directory `/root/postgresql-9.2.4/contrib/dummy_seclabel'
cp ../../../../contrib/dummy_seclabel/dummy_seclabel.so dummy_seclabel.so
gmake[2]: Leaving directory `/root/postgresql-9.2.4/src/test/regress'
gmake[1]: Leaving directory `/root/postgresql-9.2.4/src'
gmake -C config all
gmake[1]: Entering directory `/root/postgresql-9.2.4/config'
gmake[1]: Nothing to be done for `all'.
gmake[1]: Leaving directory `/root/postgresql-9.2.4/config'
All of PostgreSQL successfully made. Ready to install.
[root@TS-DEV postgresql-9.2.4]#

```

gmake 成功，Ready to install.

7. 执行gmake install

```
[root@TS-DEV postgresql-9.2.4]# gmake install
```

```

gmake[1]: Leaving directory `/root/postgresql-9.2.4/src'
gmake -C config install
gmake[1]: Entering directory `/root/postgresql-9.2.4/config'
/bin/mkdir -p '/usr/local/pgsql/lib/pgxs/config'
/bin/sh ../config/install-sh -c -m 755 ./install-sh '/usr/local/pgsql/lib/pgxs/config/install-sh'
gmake[1]: Leaving directory `/root/postgresql-9.2.4/config'
PostgreSQL installation complete.
[root@TS-DEV postgresql-9.2.4]#

```

gmake install 成功，到这一步，PostgreSQL 源码编译安装完成，下面开始配置PostgreSQL.

8. 设置环境变量

```
# vi .bash_profile
```

把 PATH=\$PATH:\$HOME/bin

改成 PATH=\$PATH:\$HOME/bin:/usr/local/pgsql/bin

保存退出。

让环境变量生效：

```
# source .bash_profile
```

9. 添加用户postgres

```
# adduser postgres
```

```
[root@TS-DEV ~]# adduser postgres
[root@TS-DEV ~]# cat /etc/passwd|grep postgres
postgres:x:528:528::/home/postgres:/bin/bash
[root@TS-DEV ~]#
```

* 更改用户目录（可选操作）

```
# vi /etc/passwd
```

把 postgres:x:528:528::/home/postgres:/bin/bash

改成 postgres:x:528:528::/usr/local/pgsql:/bin/bash

将.bash_profile 移动到新的用户目录并修改权限

```
# cp /home/postgres/.bash_profile /usr/local/pgsql/
```

```
# chown postgres.postgres .bash_profile
```

删除用户目录：

```
[root@TS-DEV home]# rm -rf postgres/
```

10. 初始化数据库

10.1 新建数据目录

```
# mkdir /usr/local/pgsql/data
```

10.2 更改权限

```
# chown postgres /usr/local/pgsql/data
```

10.3 切换到postgres 用户

```
# su - postgres
```

```
[root@TS-DEV ~]# mkdir /usr/local/pgsql/data
[root@TS-DEV ~]# chown postgres /usr/local/pgsql/data
You have new mail in /var/spool/mail/root
[root@TS-DEV ~]# su - postgres
-bash-4.1$
```

10.4 init db

```
$ /usr/local/pgsql/bin/initdb -D /usr/local/pgsql/data/
```

```

-bash-4.1$ ls
bin data include lib share
-bash-4.1$ pwd
/usr/local/pgsql
-bash-4.1$ /usr/local/pgsql/bin/initdb -D /usr/local/pgsql/data/
The files belonging to this database system will be owned by user "postgres".
This user must also own the server process.

The database cluster will be initialized with locale "en_US.UTF-8".
The default database encoding has accordingly been set to "UTF8".
The default text search configuration will be set to "english".

fixing permissions on existing directory /usr/local/pgsql/data ... ok
creating subdirectories ... ok
selecting default max_connections ... 100
selecting default shared_buffers ... 32MB
creating configuration files ... ok
creating template1 database in /usr/local/pgsql/data/base/1 ... ok
initializing pg_authid ... ok
initializing dependencies ... ok
creating system views ... ok
loading system objects' descriptions ... ok
creating collations ... ok
creating conversions ... ok
creating dictionaries ... ok
setting privileges on built-in objects ... ok
creating information schema ... ok
loading PL/pgsql server-side language ... ok
vacuuming database template1 ... ok
copying template1 to template0 ... ok
copying template1 to postgres ... ok

WARNING: enabling "trust" authentication for local connections
You can change this by editing pg_hba.conf or using the option -A, or
--auth-local and --auth-host, the next time you run initdb.

Success. You can now start the database server using:

    /usr/local/pgsql/bin/postgres -D /usr/local/pgsql/data
or
    /usr/local/pgsql/bin/pg_ctl -D /usr/local/pgsql/data -l logfile start

-bash-4.1$ █

```

到这里数据的初始化就完成了。

11. 系统服务

11.1 回到root 用户

\$ exit

11.2 复制安装目录下的linux文件到/etc/init.d/

进入postgresql 的安装目录（即刚刚使用tar命令解压的目录）

```
# cd postgresql-9.2.4
```

```
# cp contrib/start-scripts/linux /etc/init.d/postgresql
```

```

[root@TS-DEV ~]# cd postgresql-9.2.4
[root@TS-DEV postgresql-9.2.4]# ls
aclocal.m4  config  config.log  config.status  configure  configure.in  COPYRIGHT  GNUmakefile  GNUmakefile.in  HISTORY  INSTALL  Makefile  README  src
[root@TS-DEV postgresql-9.2.4]# cp contrib/start-scripts/linux /etc/init.d/postgresql
[root@TS-DEV postgresql-9.2.4]#

```

11.3 添加执行权限

```
# chmod +x /etc/init.d/postgresql
```

11.4 启动数据库


```
[root@TS-DEV postgresql-9.2.4]# chmod +x /etc/init.d/postgresql
[root@TS-DEV postgresql-9.2.4]# /etc/init.d/postgresql start
Starting PostgreSQL: ok
[root@TS-DEV postgresql-9.2.4]# ps -ef|grep postgres
postgres 16043 1 0 11:27 ? 00:00:00 /usr/local/pgsql/bin/postmaster -D /usr/local/pgsql/data
postgres 16047 16043 0 11:27 ? 00:00:00 postgres: checkpoint process
postgres 16048 16043 0 11:27 ? 00:00:00 postgres: writer process
postgres 16049 16043 0 11:27 ? 00:00:00 postgres: wal writer process
postgres 16050 16043 0 11:27 ? 00:00:00 postgres: autovacuum launcher process
postgres 16051 16043 0 11:27 ? 00:00:00 postgres: stats collector process
root 16230 2138 0 11:27 pts/1 00:00:00 grep postgres
You have new mail in /var/spool/mail/root
[root@TS-DEV postgresql-9.2.4]#
```

11.5 让数据库开机启动

```
# chkconfig --add postgresql
```

```
# chkconfig postgresql on
```

```
[root@TS-DEV postgresql-9.2.4]# chkconfig --add postgresql
[root@TS-DEV postgresql-9.2.4]# chkconfig postgresql on
[root@TS-DEV postgresql-9.2.4]# chkconfig --list|grep postgres
postgresql 0:off 1:off 2:on 3:on 4:on 5:on 6:off
[root@TS-DEV postgresql-9.2.4]#
```

11.6 创建数据库操作的历史记录文件

```
[root@TS-DEV postgresql-9.2.4]# touch /usr/local/pgsql/.psql_history
[root@TS-DEV postgresql-9.2.4]# chown postgres:postgres /usr/local/pgsql/.psql_history
[root@TS-DEV postgresql-9.2.4]#
```

12. 测试使用

```
# su - postgres
```

```
$ createdb test
```

```
$ psql test
```

```
test=# create table test(id int);
```

```
[root@TS-DEV pgsql]# su - postgres
-bash-4.1$ createdb test
-bash-4.1$ psql test
psql (9.2.4)
Type "help" for help.

test=# create table test(id int);
CREATE TABLE
test=# \dt
      List of relations
Schema | Name | Type  | Owner
-----+-----+-----+-----
public | test | table | postgres
(1 row)

test=# insert into test values(1);
INSERT 0 1
test=# select * from test;
 id
----
  1
(1 row)

test=#
```

源码编译安装成功。

PostgreSQL 的详细介绍: [请点击这里](#)

PostgreSQL 的下载地址: [请点击这里](#)