

CentOS 6.3下PostgreSQL 的安装与配置

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一、简介

PostgreSQL 是一种非常复杂的对象-关系型数据库管理系统 (ORDBMS) , 也是目前功能最强大, 特性最丰富和最复杂的自由软件数据库系统。有些特性甚至连商业数据库都不具备。这个起源于伯克利 (BSD) 的数据库研究计划目前已经衍生成一项国际开发项目, 并且有非常广泛的用户。

二、系统环境

系统平台 : [CentOS](#) release 6.3 (Final)

PostgreSQL 版本 : PostgreSQL 9.2.4

防火墙已关闭/iptables: Firewall is not running.

SELINUX=disabled

三、安装方式

A. RPM包安装

B. yum 安装

C. 源码包安装

-----华丽的分割线-----

PostgreSQL缓存详述 <http://www.linuxidc.com/Linux/2013-07/87778.htm>

Windows平台编译 PostgreSQL <http://www.linuxidc.com/Linux/2013-05/85114.htm>

[Ubuntu](#)下LAPP (Linux+Apache+PostgreSQL+PHP)环境的配置与安装 <http://www.linuxidc.com/Linux/2013-04/83564.htm>

Ubuntu上的phpPgAdmin安装及配置 <http://www.linuxidc.com/Linux/2011-08/40520.htm>

CentOS平台下安装PostgreSQL9.3 <http://www.linuxidc.com/Linux/2014-05/101723.htm>

PostgreSQL配置Streaming Replication集群 <http://www.linuxidc.com/Linux/2014-05/101724.htm>

-----华丽的分割线-----

四、安装过程

A. RPM包安装

1. 检查PostgreSQL 是否已经安装

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

若已经安装，则使用rpm -e 命令卸载。

2. 下载RPM包

```
# wget http://yum.postgresql.org/9.2/RedHat/rhel-6-i386/postgresql92-server-9.2.4-1PGDG.rhel6.i686.rpm
```

```
# wget http://yum.postgresql.org/9.2/redhat/rhel-6-i386/postgresql92-contrib-9.2.4-1PGDG.rhel6.i686.rpm
```

```
# wget http://yum.postgresql.org/9.2/redhat/rhel-6-i386/postgresql92-libs-9.2.4-1PGDG.rhel6.i686.rpm
```

```
# wget http://yum.postgresql.org/9.2/redhat/rhel-6-i386/postgresql92-9.2.4-1PGDG.rhel6.i686.rpm
```

3. 安装PostgreSQL，注意安装顺序

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

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

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

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

4. 初始化PostgreSQL 数据库

PostgreSQL 服务初次启动的时候会提示初始化。

```
[root@TS-DEV david]# /etc/init.d/postgresql-9.2 start
/var/lib/pgsql/9.2/data is missing. Use "service postgresql-9.2 initdb" to initialize the cluster first.
[FAILED]
[root@TS-DEV david]# _
```

初始化数据库

```
# service postgresql-9.2 initdb
```

```
[root@TS-DEV david]# service postgresql-9.2 initdb
Initializing database: [ OK ]
[root@TS-DEV david]# _
```

5. 启动服务

```
# service postgresql-9.2 start
```

```
[root@TS-DEV david]# service postgresql-9.2 start
Starting postgresql-9.2 service: [ OK ]
[root@TS-DEV david]# _
```

6. 把PostgreSQL 服务加入到启动列表

```
# chkconfig postgresql-9.2 on
```

```
# chkconfig --list|grep postgres
```

```
[root@TS-DEV david]# chkconfig postgresql-9.2 on
[root@TS-DEV david]# chkconfig --list|grep postgres
postgresql-9.2 0:off 1:off 2:on 3:on 4:on 5:on 6:off
[root@TS-DEV david]# _
```

7. 修改PostgreSQL 数据库用户postgres的密码(注意不是linux系统帐号)

PostgreSQL 数据库默认会创建一个postgres的数据库用户作为数据库的管理员，默认密码为空，我们需要修改为指定的密码，这里设定为'postgres'。

```
# su - postgres
```

```
$ psql
```

```
# ALTER USER postgres WITH PASSWORD 'postgres';
```

```
# select * from pg_shadow ;
```

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

postgres=# ALTER USER postgres WITH PASSWORD 'postgres';
ALTER ROLE
postgres=# select * from pg_shadow;
 username | usesysid | usecreatedb | usesuper | usecatupd | userepl |
          |          |             |          |           |         |
          | passwd   |             |          |           |         | md53175bce
-----+-----+-----+-----+-----+-----+-----
 postgres |      10 | t           | t        | t         | t       | 1d3201d16594cebf9d7eb3f9d
(1 row)

postgres=# _
```

8. 测试数据库

8.1 创建测试数据库

```
# create database david;
```

```
postgres=# create database david;
CREATE DATABASE
postgres=# \l

      List of databases
  Name      | Owner   | Encoding | Collate  | Ctype    | Access privileges
-----+-----+-----+-----+-----+-----
 david      | postgres | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 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
(4 rows)
```

8.2 切换到david 数据库

```
# \c david
```

```
postgres=# \c david
You are now connected to database "david" as user "postgres".
david=#
```

8.3 创建测试表

```
david=# create table test (id integer, name text);
```

```
david=# create table test (
david(# id integer,
david(# name text);
CREATE TABLE
david=#
```

8.4 插入测试数据

```
david=# insert into test values (1, 'david');
INSERT 0 1
david=#
```

8.5 选择数据



```
david=# select * from test ;
 id | name
----+-----
  1 | david
(1 row)
```

```
david=#
```



测试完成，RPM包安装成功。

9. 修改linux 系统用户postgres 的密码

PostgreSQL 数据库默认会创建一个linux 系统用户postgres，通过passwd 命令设置系统用户的密码为post123。

```
# passwd postgres
```

```
[root@TS-DEV david]# passwd postgres
Changing password for user postgres.
New password:
BAD PASSWORD: it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@TS-DEV david]#
```

10. 修改PostgreSQL 数据库配置实现远程访问

10.1 修改postgresql.conf 文件

```
# vi /var/lib/pgsql/9.2/data/postgresql.conf
```

```
# - Connection Settings -

listen_addresses = '*'                                # what IP address(es) to listen on;
                                                        # comma-separated list of addresses;
                                                        # defaults to 'localhost'; use '*' for a
ll                                                    # (change requires restart)

-- INSERT --
```

如果能让PostgreSQL 监听整个网络的话，将listen_addresses 前的#去掉，并将 listen_addresses = 'localhost' 改成 listen_addresses = '*'

10.2 修改客户端认证配置文件pg_hba.conf

将需要远程访问数据库的IP地址或地址段加入该文件。

```
# vi /var/lib/pgsql/9.2/data/pg_hba.conf
```

```
# Put your actual configuration here
# -----
#
# If you want to allow non-local connections, you need to add more
# "host" records.  In that case you will also need to make PostgreSQL
# listen on a non-local interface via the listen_addresses
# configuration parameter, or via the -i or -h command line switches.

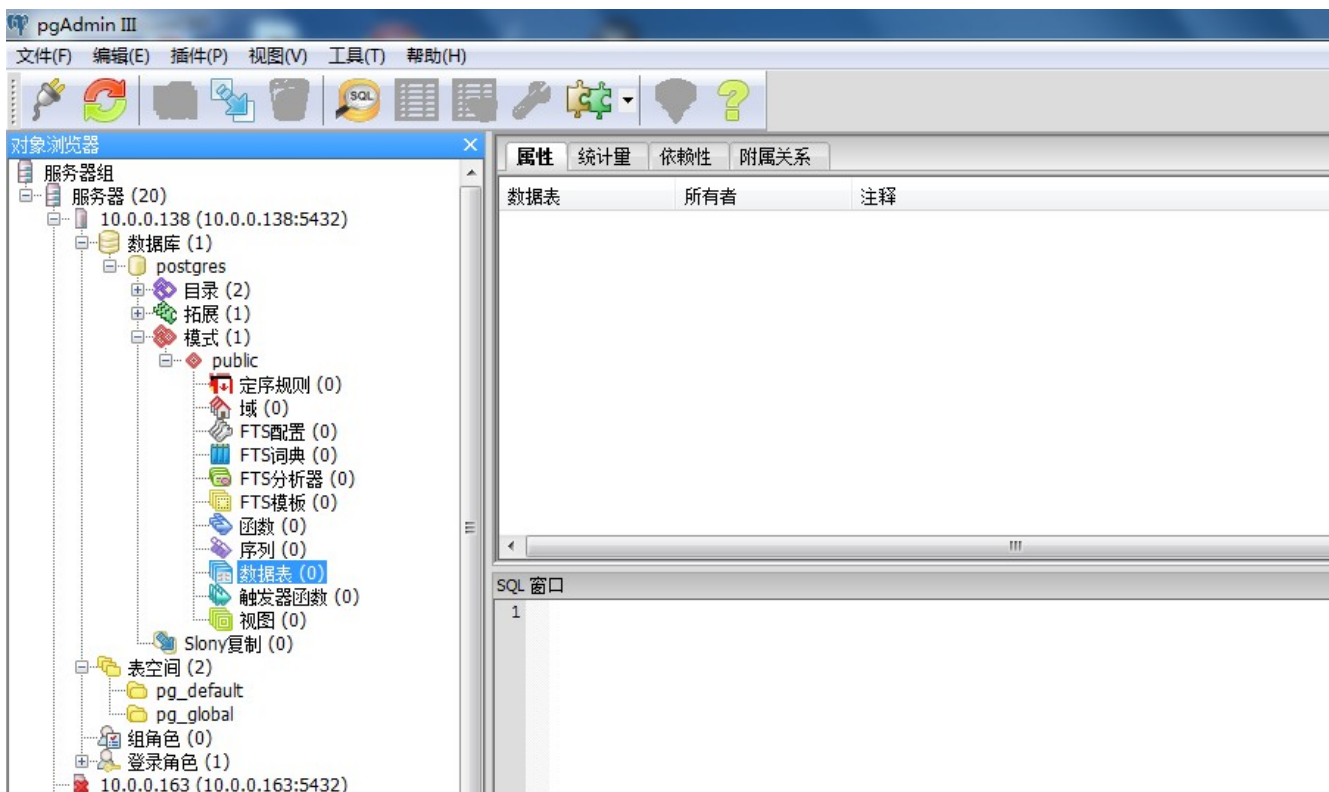
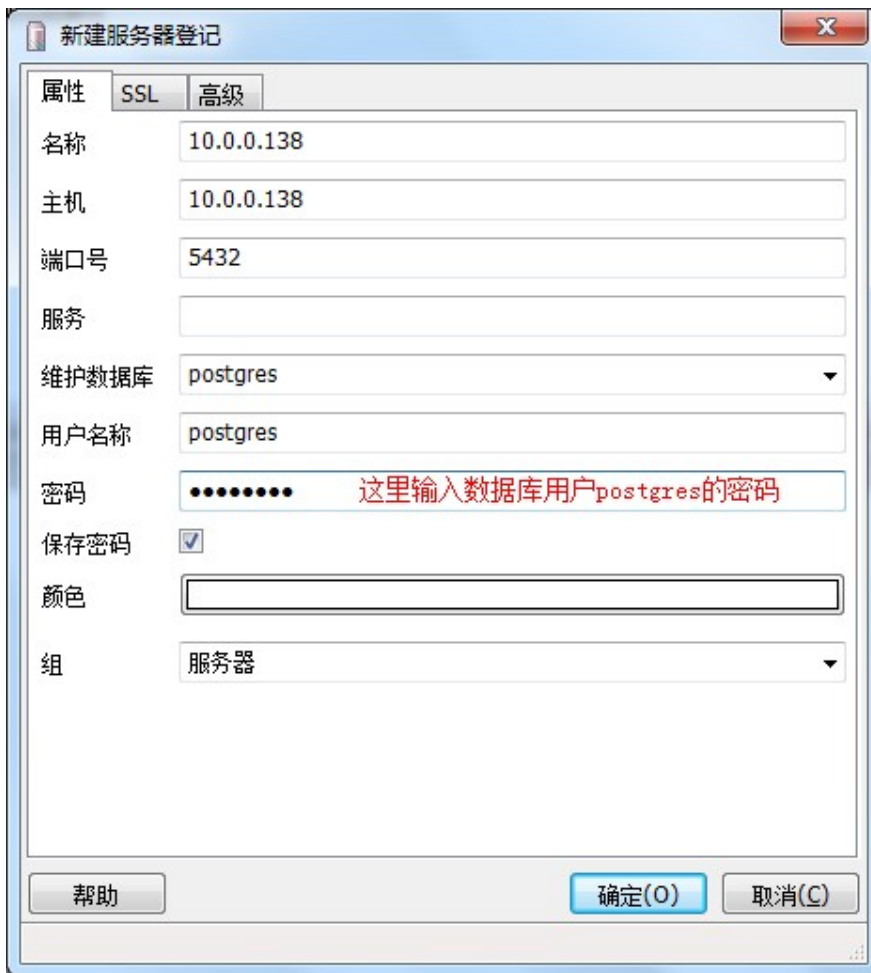

# TYPE      DATABASE          USER            ADDRESS          METHOD
# "local" is for Unix domain socket connections only
local      all                all                                peer
# IPv4 local connections:
host       all                all             127.0.0.1/32     ident
host       all                all             10.0.0.0/8       md5
# IPv6 local connections:
host       all                all             ::1/128          ident
# Allow replication connections from localhost, by a user with the
# replication privilege.
#local      replication        postgres        peer
#host       replication        postgres        127.0.0.1/32     ident
-- INSERT --
```

11. 重启服务以使设置生效

```
# service postgresql-9.2 restart
```

```
[root@TS-DEV david]# service postgresql-9.2 restart
Stopping postgresql-9.2 service:      [ OK ]
Starting postgresql-9.2 service:      [ OK ]
[root@TS-DEV david]# _
```

12. 远程测试连接



连接成功。

更多详情见请继续阅读下一页的精彩内容：<http://www.linuxidc.com/Linux/2014-05/101725p2.htm>