

SPAMJADOO INSTALLATION GUIDE



Prepared By
DATAINFOCOM LIMITED

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Introduction

SpamJadoo is the only technology that is engineered to solve the root cause of spam. Rejected spam is stopped before it is even sent to receiver. The resulting benefit is that spammers discard emails as they are protected by **SpamJadoo** as a result of it, bandwidth is liberated because no spam is transmitted at any point over the network. For the ISP, whose networks no longer carry spam, and customers are rewarded for loyalty because the longer they stay with the same ISP, the fewer spammer databases they will be listed on.

Only '**SpamJadoo**' actually prohibits spammers from sending spam. We feel it is the one technology that can actually eliminate the spam problem, permanently.

The technology used by the '**SpamJadoo**' is, that its server runs on a **Linux platform** and operates as a "**Primary Mail Exchanger (MX)**" mail relay, which means that when others try to send email, it is first contacted with the server, as it works as first server and then comes in inbox.

'**SpamJadoo**' can be seen as a regular email server, that accepts email and also sends email. It also keeps track of email addresses that it can accept email for. However, it works with email servers and does not replace their other functions.

Although the **SpamJadoo** becomes your domain's "**Primary MX**", i.e it is the first server that accepts all outside email, it does NOT force itself upon all the email addresses for their domain. **SpamJadoo** can protect as few as 1 or as many as all the email addresses for a given domain.

Both end-users and administrators control **SpamJadoo** via its Web-based "**Dashboard**" module that can be accessed via Internet Explorer version 5 or higher.

Prerequisite and Initial Configuration

✚ Minimum Hardware Configuration

Component		
Processor	Pentium IV	
Hard Disk Space	40 GB	
Memory	1024 MB RAM	2 GB or More (for better performance)
Display	SVGA monitor (1024 by 768)	
CD-ROM Drive	52x or faster	

✚ Minimum Server Software Configuration

Component	
Operating System	Linux
Technology	Java 1.4.0_01 and Above
Database	Postgresql 7.4 and Above
Web Server	Orion 2.0.2

Software Installation

Deployment Process

The software deployment process will start after successful installation of Linux and is as follows. :

The configuration of **Spamjadoo** requires following while installation:

1. Orion 2.0.2(Web Server)

Orion Server should be installed in /home directory i.e. /home/orion

Download Stable Orion Server from <http://www.orionserver.com/>

2. Java 1.4.0_01 and above for Linux (use rpm (j2sdk-1_4_2_03-linux-i586.rpm) based installation). Install rpm by rpm -ivh <filename> command

Download JDK for Linux from

<http://java.sun.com/j2se/1.4.2/download.html>

JDK Path should be set.

PATH = /usr/java/j2sdk1.4.2_03/bin

JAVA_HOME = /usr/java/j2sdk1.4.2_03

3. Postgresql 7.4 Database (use rpm (postgresql-7.4.1-1PGDG.i386.rpm) based installation). Install rpm by rpm -ivh <filename> command

Download Postgres 7.4 rpm from <http://rpmfind.net>

Make necessary changes in pg_hba.conf and postgresql.conf files.

(Details are given below)

Restart postgres

Postgresql should be running.

Type this command of sequence on prompt

ps -ef | grep postmaster

It will give you a postmaster entry.



```
root@egor:~  
[root@egor root]# ps -ef | grep postmaster  
postgres 5221 1 0 May02 ? 00:00:00 /usr/local/pgsql/bin/postmaster -i -D /usr/local/pgsql/data  
root 27026 26712 0 09:40 pts/3 00:00:00 grep postmaster  
[root@egor root]#
```



STEPS TO FOLLOW

🔧 Installation Process

First you should login as a **root** (which should have all the rights of the system administrator) in your machine then, follow the following steps:

INSTALLATION THROUGH TAR

1. Make sure changes in `pg_hba.conf` and `postgresql.conf` files.
2. Make a **directory** in your machine like `spamjadooSetup`.
3. Copy the **spamjadoo_setup.tar** file to your above created directory.
4. Untar (`tar -xvf spamjadoo_setup.tar *`) the **spamjadoo_setup.tar** file in your current directory.
5. Execute the shell script **sh spamjadoosetup.sh** to install the Spamjadoo.
6. It will check for the Utility for Querying DNS Name Servers, Hard Disk Space and Memory and put into the `install.log` file.
7. It will check for the **Orion web server path** and the **JDK path**.
8. It will ask you about **Orion web server path**, if Orion is not in `/home` directory, then provide the Orion web server path of your system.
9. Then it will ask for JDK path, if not found, provide the JDK path also.
10. After this it will ask for the postgresql database, if it is already exist in your system, it will inform you and ask to overwrite, clicking on yes will create the new database otherwise it will use existing one.
11. It will also ask you about Domain settings , in which you have to enter the following details:

(Replace `datainfosys.net` with your desired domain)

Domain Name (e.g. `datainfosys.net`)

SMTP IP address (e.g. `202.157.79.1`)

POP3 IP address (e.g. `202.157.79.101`)

Spamjadoo will deliver valid email to the POP server, if you want to pass the emails through Antivirus Server, please give IP of that server. The AntiVirus server must support Post Office Protocol and SMTP.

Domain Transformation (e.g. `othervalidpopdomain.net`), if no entry for domain transformation then enter above domain (`datainfosys.net`).

Authentication IP By default enter same POP3 server IP.

Authentication Scheme Enter 0 for [UserName@DomainName] and 1 for [UserName] Only.

In Admin settings, you have to enter the details like:

Admin First name

Admin Last name

Admin ID (it is the username of that email id which you are having at the domain specified above. e.g. abc@datainfosys.net , so just write abc)

12. If you have installed all the software correctly, it will give you the message of successful installation.
13. After installation, one installation log file will be created in the same directory named as **install.log**

Un-Installation Process

1. If you wish to uninstall the software execute the **sh uninstallspamjadoo.sh**
2. This command will remove all the files (including the database) related to the Spamjadoo from your system.

File and Folder Description

TAR file contains the following files and folders:

1. **Dashboard folder**
It contains all the necessary folders and JSP files to run dashboard module.
2. **Server folder**
Folder contains all the necessary folders, .class files and server configuration file to run SpamJadoo server.
3. **spamjadoosetup.sh (file)**
Main setup file which will call other configuration files.
4. **setlocal.sh (file)**
This is a shell script that configure orion web server for spamjadoo and creates Linux user.

5. **crtdbusr.sh (file)**

Shell script that creates database user (i.e. spamjadoo) and database (i.e. spamjoodb).

6. **crtdbobj.sh (file)**

Shell script that creates database objects for Spamjadoo.

(Note: please set the path of psql bin in PGBIN= and psql path in psql= variable for the above two files.)

7. **spamjadoo-web-site.xml (file)**

This is a file which is copied to the required destination (/orion/config/) when you run the spamjadoosetup.sh.

8. **uninstallspamjadoo.sh (file)**

Shell script that uninstall the Spamjadoo Software.

9. **dropuserdb.sh (file)**

Shell script that drops the database user and database objects.



Command Line Process to Check and Maintain the Server

You must be logged in as root on the Server.

POSTGRES START/STOP PROCESS

How to check Postgres is running or not

Type this command of sequence on prompt

ps -ef | grep postmaster

It will give you a postmaster entry. See below



```
root@egor:~  
[root@egor root]# ps -ef | grep postmaster  
postgres 5221 1 0 May02 ? 00:00:00 /usr/local/pgsql/bin/postmaster -i -D /usr/local/pgsql/data  
root 27026 26712 0 09:40 pts/3 00:00:00 grep postmaster  
[root@egor root]#
```

How to Start Postgres Database

Type this command of sequence on prompt

su postgres -c '/usr/local/pgsql/bin/pg_ctl start -D /usr/local/pgsql/data'

How to Stop Postgres Database

Type this command of sequence on prompt

su postgres -c '/usr/local/pgsql/bin/pg_ctl stop -m fast -D /usr/local/pgsql/data'

IF POSTGRES IS INSTALLED THROUGH RPM THEN USE THESE COMMAND FOR POSTGRES START AND STOP

For Start,

`/etc/rc.d/init.d/postgresql start`

For Stop,

`/etc/rc.d/init.d/postgresql stop`

ORION START/STOP PROCESS

How to check Orion is running or not

Type this command of sequence on prompt

ps -ax | grep orion

If it is Orion Web Server is running then it will give you a **java -jar orion.jar** entry. See below



```
root@egor:~  
[root@egor root]# ps -ax | grep orion  
5600 ?        S          0:05 java -jar orion.jar  
27178 pts/3  S          0:00 grep orion  
[root@egor root]#
```

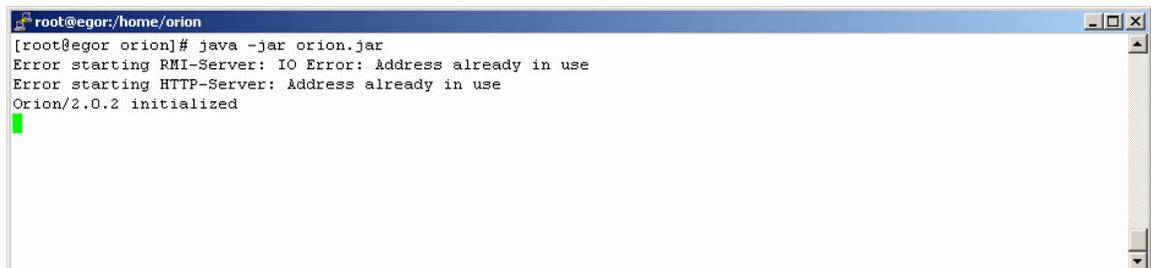
If it is Orion Web Server is not running then you will not be able to the home page of Dashboard.

How to Start Orion Web Server

Type this command of sequence on prompt (first go to the orion home directory).

cd /home/orion
java -jar orion.jar

When it will start it gives you **Orion/2.0.2 initialized** message on prompt



```
root@egor:/home/orion  
[root@egor orion]# java -jar orion.jar  
Error starting RMI-Server: IO Error: Address already in use  
Error starting HTTP-Server: Address already in use  
Orion/2.0.2 initialized  
█
```

How to Stop Orion Web Server

Press CTRL + c to stop Orion Web Server on the above screen.

OR

Killed by Process Id

Final Check

The Screen on the console should look like below.

Login as: root

Sent username "root"

root@66.128.32.66's password:

Last login: Tue May 4 11:08:44 2004 from 202.157.65.10

[root@egor root]# ps -ax |grep java

```
31226 ?    S    0:00 java z
31227 ?    S    0:00 java y
31228 ?    S    0:00 java -jar orion.jar
31229 ?    S    0:24 java xv
31230 ?    D    0:03 java xy
1714 pts/2 S    0:00 grep java
```

Log Details

You can see the logs of incoming, forward, retry and bounce threads in the following directory with the name of `antispam.log`, `forward.log`, `retry.log` and `bounce.log`.

`/home/spamjadoo/server`

[root@egor root]# ps -ax |grep postg

```
5224 ?    S    0:00 postgres: stats buffer process
5225 ?    S    0:00 postgres: stats collector process
5583 ?    S    1:25 postgres: spamjadoo spamjadoo db 66.128.32.66 id
1722 pts/2 S    0:00 grep postg
[root@egor root]#
```

SPAMJADOO SERVER START/STOP PROCESS

First you reached to the default directory of Spamjadoo Server i.e. `/home/spamjadoo/server` then,

Execute the **start** shell script by following command
sh start or ./start <name of the administrator>

It will kill the existing Spamjadoo Server if server is running and restart Spamjadoo Server on Port **25**.

FILE STRUCTURE/STORAGE

The default installation is /home/spamjadoo. You will get two directories out here:

1. SERVER

Server directory includes following things:

Sub Directories –

1. **InBox**: It will store incoming mails in the form of file.
2. **Undelivered**: It will store those mails which will be bounced to the sender's.
3. **org**: Postgres Database Driver

CLASS files and .TXT Files.

Read all .txt files in details to understand the functionality of .txt files.

ServerConfig.txt

```
[Spamjadoo Configuration File]
# -----
# Spamjadoo Server Configuration File
# -----
#
# This file consists of lines of the form:
#
# name=value
#
# (The '=' is optional.) Comments are introduced
# with '#' anywhere on a line. The complete list of option names and
# allowed values can be found in the Spamjadoo Server Configuration
# Documentation.
# The commented-out settings shown in this file represent the default values.
#
# This file is read by Spamjadoo Server on startup. Do not change the name
# in this file.
# -----

# Configuration file for Spamjadoo Server.This files contains
# necessary parameters to start Spamjadoo Server.
# Default Spamjadoo SMTP Server Port, make sure it is not used
# by any other process like sendmail or postfix etc.
SmtP-Port=25

# No of concurrent connection Spamjadoo will be allowed to open.
Max-Threads=50

# No of RCPT TO in a particular email allowed, more than that
# will be treated as SPAM
```

Max-Recipients=10

Postgres Database Connection Parameters
DB-ConnString=DriverType:DriverForPostgres://hostname/DatabaseName
DB-ConnString=jdbc:postgresql://localhost/spamjadoo

Database UserName
DB-Username=spamjadoo

Database Password
DB-Password=c3BhbWphZG9v

It Contains the Black Listed Domains Entry File (**BlackListDomain.txt**)
BlackDomainFile=BlackListDomain.txt

For Example:

```
<domain>  
#freeadvbanners.com - to block particular domain  
#anotherexample.com$ - to block all the emails from that domain and  
subdomains  
#attbi.com$  
</domain>
```

It Contains the Black Listed IP Entry File (**BlackListIp.txt**)
BlackIpFile=BlackListIp.txt

For Example

```
<IpRange>  
#202.157.79.6-202.157.79.7  
</IpRange>
```

It Contains the White Listed Domain Entry File (**WhiteListDomain.txt**)
WhiteDomainFile=WhiteListDomain.txt

```
<domain>  
#dil.in - allow domain  
#datainfosys.net$ - to allow all the emails from that domain and  
subdomains  
</domain>
```

It Contains the White Listed IP Entry File (**WhiteListIp.txt**)
WhiteIpFile=WhiteListIp.txt

For Example

```
<IpRange>  
#202.157.79.10-202.157.79.12  
</IpRange>
```

It Contains the Black Listed Banner Entry File (**BlackListBanner.txt**)
BlackBannerFile=BlackListBanner.txt

For Example

```
<banner>
# mta-v25.level3.mail.yahoo.com
</banner>
```

It Contains the White Listed Banner Entry File (**WhiteListBanner.txt**)
WhiteBannerFile=WhiteListBanner.txt

For Example

```
<banner>
# SpamJadoo Antispam SMTP Service by http://datainfosys.net
</banner>
```

It Contains the list of External SMTP Servers Allow to Relay for Internal
Configured Domains. (**HostAllowed.txt**)
HostFile=HostAllowed.txt

For Example:

```
<IpRange>
202.157.64.0-202.157.95.254
10.11.12.0-10.11.12.254
202.131.136.56-202.131.136.62
203.197.196.128-203.197.196.158
66.139.78.94-66.139.78.94
202.131.133.128-202.131.133.134
10.11.0.0-10.11.31.254
10.11.96.0-10.11.127.254
</IpRange>
```

WhiteListEmail.txt

Any email received from the following email id or email id pattern will be
treated as FRIEND.

Example: antispam@dil.in

Example: shiv*@dil.in

WhiteListEmail Entry will override the BlackListEmail Rule

Please do not change the syntax <email> </email>, it will not work as
desired.

```
<email>
# *shiv*@datainfosys.net
# antispam*@dil.in
# *deepak*@dil.in
</email>
```

BlackListEmail.txt

Any email received from the following email id or email id pattern will be treated as SPAM and 554 response [Connection Terminated – id found in BlackListEmail.txt] will be sent to the MAIL FROM id.
If the BlackListedEmail Entry is also found in WhiteListEmail file, it will be treated as FRIEND.
Example: antispam@dil.in
In the above mentioned setting the email id will be BLOCKED.

Example: *deepak@datainfosys.net
According to the above example any email id which start by any name (use * as Wild Card) but ending with deepak@datainfosys.net will be BLOCKED. * Wild Card can be used before @ symbol or Domain Name.
please do not change the syntax <email> </email>, it will not work as desired.

```
<email>  
# *deepak@datainfosys.net  
# *shiv*@datainfosys.net  
# antispam*@dil.in  
</email>
```

If in specified seconds, the SMTP or POP server does not give response to any commnad, connection will be closed
SocketTimeOut = milliseconds
SocketTimeOut=20000

Delay in between retries, if Server is not able to communicate with SMTP Server or POP server
Timeinmin_Retry= milliseconds
Timeinmin_Retry=10000

Retry = No of retries to connect to SMTP / POP server
Retry=10

If AllowInternetRelay=ON - Spamjadoo will accept email from external domains but from internal IP
AllowInternalRelay=off

Directory Harvest Attatk - No of continuous attacks from a particular IP to identify as DHA
NumNSU = No_of_continiuous_attacks
NumNSU=20

IF an IP gets blacklisted because of DHA than for how many days IP will be treated as BlackListed
ShelfLifeDHA = Numer_of_days
ShelfLifeDHA=1

Value in Bytes i.e MB = 1048576 bytes
MaxDataSize=2007152

```
# Syslog Server to store error logs
SysAddress=202.157.72.250

# Default Public Smtplib for Internal Relay
DefaultSmtplib=202.157.81.38

# Forward Thread Listing Port
QueueThreadServerPort=8009

# Forward Thread Running on IP
QueueThreadServerIp=127.0.0.1

# Retry Thread will pick emails (which is not sent by forward thread) after
each ThreadInterval Time
ThreadInterval=300000

# Retry Thread Execution Interval Time
RetryInterval=2000000

# Default Banner for Spamjadoo Server
Banner= Spamjadoo SMTP Service by http://datainfocom.in

# Maximum Time Retry Thread will try to send mail
MaxRetry=7200000

# Default Retry Thread Count
NoOfRetryThread=1

# It contains the DNSBL Zones for reverse DNS lookup (zone.txt)
ZoneFile=zone.txt

    For Example

    <dnsbl>
    dnsbl.sorbs.net
    </dnsbl>

# Set the true/false for reverse DNS Lookup to stop spam registered sites
isreversecheck=false

# Set the true/false for antivirus mail facility
clamscan=false

# ON/OFF Setting for Insertion of Logs into Spamjadoo Dashboard
# (IncomingLog, OutgoingLog, KeyMailLog, AliasLog and SessionLog).
# (By default is OFF, If you want to turn ON then ensure that you should
# has Additional 256MB with Extra Hard Drive Space)

Incoming=OFF
SpamSession=OFF
OutBound=OFF
```

```
KeyMail=OFF  
Alias=OFF
```

```
# Batch Processing (Log Intertion) Interval Time in Milisecond.  
BatchTime=1000
```

```
# Set the path for the InBox And Undelivered Folder [Default is Current  
Path(.)]  
path=.
```

```
# Number of Times Retry to Connect POP Server. If POP Not Responding to  
# Spamjadoo Server.  
Max_Retry=20
```

```
# Set the Time Limit, where POP Server should response.  
Max_Retry_Time=10000
```

```
# Set the flag (0-Non Active, 1-Active) to receive un-validate sender list on  
# email address for pre-approve.  
SendUnknown = 0
```

NOTE: Order of .txt file processing is IP, Banner, Domain, Email and HostAllowed. WhiteList will be process first then BlackList.

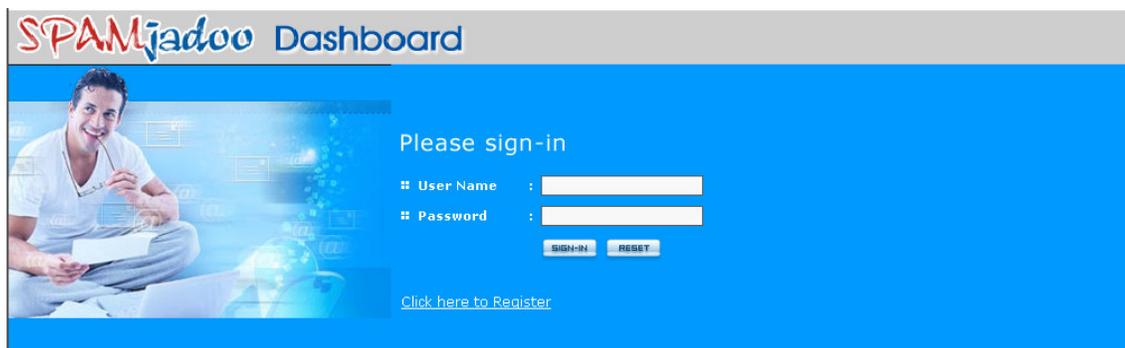
2. DASHBOARD

Dashboard directory includes all the CLASS, Tag Library and JSP files for Spamjadoo Dashboard.

After the complete installation of Spamjadoo you can see Spamjadoo Dashboard on the following URL:

<http://localhost> or <http://machineIP>

The following Screen will come after submitting above URL



Now you can test your Spamjadoo Dashboard by entering UserId (along with domain) and POP3 Password. If you will get next screen then it means your dashboard is working fine, otherwise there is some problem like UserId or Password Wrong.

UserId should be same which you have entered at the time of Spamjadoo Installation.

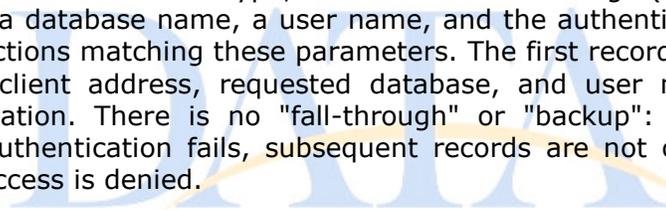
Note: For proper working of Spamjadoo you should have Orion, Postgres Database and Spamjadoo Service (preceded by java) in running process.

1) Change pg_hba.conf file:

File path is /var/lib/pgsql/data/ or /usr/local/pgsql/data/

Client authentication is controlled by the file pg_hba.conf in the data directory, The general format of the pg_hba.conf file is a set of records, one per line. Blank lines are ignored, as is any text after the "#" comment character. A record is made up of a number of fields which are separated by spaces and/or tabs. Fields can contain white space if the field value is quoted. Records cannot be continued across lines.

Each record specifies a connection type, a client IP address range (if relevant for the connection type), a database name, a user name, and the authentication method to be used for connections matching these parameters. The first record with a matching connection type, client address, requested database, and user name is used to perform authentication. There is no "fall-through" or "backup": if one record is chosen and the authentication fails, subsequent records are not considered. If no record matches, access is denied.


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A record may have one of the three formats

```
local database user authentication-method [authentication-option]  
host database user IP-address IP-mask authentication-method [authentication-option]  
hostssl database user IP-address IP-mask authentication-method  
[authentication-option]
```

The meaning of the fields is as follows:

local

This record matches connection attempts using Unix domain sockets. Without a record of this type, Unix-domain socket connections are disallowed

host

This record matches connection attempts using TCP/IP networks. Note that TCP/IP connections are disabled unless the server is started with the `-i` option or the `tcpip_socket` postgresql.conf configuration parameter is enabled.

hostssl

This record matches connection attempts using SSL over TCP/IP. *host* records will match either SSL or non-SSL connection attempts, but *hostssl* records require SSL connections.

To be able make use of this option the server must be built with SSL support enabled. Furthermore, SSL must be enabled by enabling the option `ssl` in postgresql.conf

database

Specifies which databases this record matches. The value `all` specifies that it matches all databases

user

Specifies which PostgreSQL users this record matches. The value `all` specifies that it matches all users. Otherwise, this is the name of a specific PostgreSQL user.

IP-address

IP-mask

These two fields contain IP address/mask values in standard dotted decimal notation. (IP addresses can only be specified numerically, not as domain or host names.) Taken together they specify the client machine IP addresses that this record matches. The precise logic is that

(*actual-IP-address xor IP-address-field*) and *IP-mask-field* must be zero for the record to match. (Of course IP addresses can be spoofed but this consideration is beyond the scope of PostgreSQL.)

These fields only apply to host and hostssl records.

authentication-method

Specifies the authentication method to use when connecting via this record.

trust

The connection is allowed unconditionally.

reject

The connection is rejected unconditionally

md5

Requires the client to supply an MD5 encrypted password for authentication

password

Same as "md5", but the password is sent in clear text over the network

The pg_hba.conf file is read on start-up and when the postmaster receives a SIGHUP signal. If you edit the file on an active system, you will need to signal the postmaster (using pg_ctl reload or kill -HUP) to make it re-read the file.

Example of file

```
# Allow any user on the local system to connect to any database under
# any user name using Unix-domain sockets (the default for local
# connections).
#
# TYPE DATABASE USER IP-ADDRESS IP-MASK METHOD
local all all trust

# The same using local loopback TCP/IP connections.
#
# TYPE DATABASE USER IP-ADDRESS IP-MASK METHOD
host all all 127.0.0.1 255.255.255.255 trust
host all all 10.11.13.0 255.255.255.0 trust
host all all 202.157.79.51 255.255.255.255 trust

# Allow any user from any host with IP address 192.168.93.x to connect
# to database "template1" as the same user name that ident reports for
# the connection (typically the Unix user name).
#
# TYPE DATABASE USER IP-ADDRESS IP-MASK METHOD
```

```
host all all ident sameuser
```

2) Change postgresql.conf file:

File path is same as above file

Change the following Parameter as given below:

```
tcpip_socket          = true
max_connections       = 100 (editable as required)
port                  = 5432 (default editable )
shared_buffer        = 200 (editable as required)
sort_mem              = 1024      # min 64, size in KB
vacuum_mem            = 4096      # min 1024, size in KB
```

this file consists of lines of the form : name = value

the '=' is optional .white space may be used. comments are introduced with # any where in line .The complete list of option name and allowed values can be found in the postgresql documentation .The commented-out setting shown in this file represent the default values.

3) start postgres server with following command

```
/usr/local/pgsql/bin/initdb - D <new database path>
                                     -- with postgres user
or
/usr/local/pgsql/bin/postmaster - I - D <new database path>
                                     -- with postgres user
```

4) Change password of postgres linux user.

```
su root
                                     --login as root on linux

passwd postgres
                                     --assign password to postgres user
```