# Rocket.Chat Installation Steps on Ubuntu 18.04

## 1. Server purchase and specs:

I purchased a server on DigitalOcean with the next specs:

```
- 1 vCPU Shared
- Centos 7
- 2GB / 50GB Disk
- ($10/mo)
```

These are the minimal requirements to proceed with our Rocket.Chat installation (See Hardware Requirements).



I created 2 rocket chat servers because the first one was easy, but I wanted to know how the behind the scenes process was, so I proceeded to install from scratch.

So once the server is set up, I proceeded to update and upgrade Centos in order to set environment rules, packages and libraries required to install as rocketchat as mongodb and nodejs. In my case, I used these commands:

```
- sudo apt-get update
- sudo apt-get upgrade
```

If you feel that more information is required, please check this guide.

**2. Firewall Ports**

```
root@rocket-server:~# ufw allow ssh
Rules updated
Rules updated (v6)
root@rocket-server:~# ufw allow http
Rules updated
Rules updated (v6)
root@rocket-server:~# ufw allow https
Rules updated
Rules updated (v6)
root@rocket-server:~# ufw allow 3000
Rules updated
Rules updated (v6)
root@rocket-server:~# ufw enable
Command may disrupt existing ssh connections. Proceed with operation (y|n)? y
Firewall is active and enabled on system startup
root@rocket-server:~#
```

**3. MongoDB and NodeJS installation settings:**

IMPORTANT NOTICE: Please be aware that Nodejs 12.x version was deprecated for meteor, so now it's important to use 14.x version or later.

MongoDB steps

Public Key

```
root@rocket-server:~# sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --rec
v 9DA31620334BD75D9DCB49F368818C72E52529D4
Executing: /tmp/apt-key-gpghome.gf5A5jd7BY/gpg.1.sh --keyserver hkp://keyserver.ubuntu
.com:80 --recv 9DA31620334BD75D9DCB49F368818C72E52529D4
gpg: key 68818C72E52529D4: public key "MongoDB 4.0 Release Signing Key <packaging@mong
odb.com>" imported
gpg: Total number processed: 1
gpg:               imported: 1
root@rocket-server:~#
```

```
echo  "deb [  arch=amd64  ]  https://repo.mongodb.org/apt/ubuntu
bionic/mongodb-org/4.0     multiverse"     |     sudo     tee
/etc/apt/sources.list.d/mongodb-org-4.0.list
```

```
root@rocket-server:~# echo "deb [ arch=amd64 ] https://repo.mongodb.org/apt/ubuntu bio
nic/mongodb-org/4.0 multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-org-4.0.lis
t
deb [ arch=amd64 ] https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0 multiver
se
root@rocket-server:~#
```

Install NodeJS

```
root@rocket-server:~# sudo apt-get install -y curl
Reading package lists... Done
Building dependency tree
Reading state information... Done
curl is already the newest version (7.58.0-2ubuntu3.16).
curl set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.
root@rocket-server:~#
```

```
root@rocket-server:~# curl -sL https://deb.nodesource.com/setup_14.x | sudo bash -

## Installing the NodeSource Node.js 14.x repo...


## Populating apt-get cache...

+ apt-get update
Hit:1 https://repos-droplet.digitalocean.com/apt/droplet-agent main InRelease
Get:2 http://mirrors.digitalocean.com/ubuntu bionic InRelease [242 kB]
Hit:3 http://security.ubuntu.com/ubuntu bionic-security InRelease
Ign:4 https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0 InRelease
Get:5 https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0 Release [2989 B]
Hit:6 http://mirrors.digitalocean.com/ubuntu bionic-updates InRelease
Get:7 https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0 Release.gpg [801 B]
Hit:8 http://mirrors.digitalocean.com/ubuntu bionic-backports InRelease
Get:9 https://repo.mongodb.org/apt/ubuntu bionic/mongodb-org/4.0/multiverse amd64 Pack
ages [18.4 kB]
Fetched 264 kB in 1s (278 kB/s)
Reading package lists... Done

## Confirming "bionic" is supported...

+ curl -sLf -o /dev/null 'https://deb.nodesource.com/node_14.x/dists/bionic/Release'

## Adding the NodeSource signing key to your keyring...

+ curl -s https://deb.nodesource.com/gpgkey/nodesource.gpg.key | gpg --dearmor | tee /
usr/share/keyrings/nodesource.gpg >/dev/null
```

Install build tools, MongoDB, nodejs and graphicsmagick:

```
root@rocket-server:~# sudo apt-get install -y build-essential mongodb-org nodejs graph
icsmagick
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu cpp cpp-7 dpkg-dev fakeroot
  fontconfig-config fonts-dejavu-core fonts-droid-fallback fonts-noto-mono g++ g++-7
  gcc gcc-7 gcc-7-base ghostscript gsfonts libalgorithm-diff-perl
  libalgorithm-diff-xs-perl libalgorithm-merge-perl libasan4 libatomic1
  libavahi-client3 libavahi-common-data libavahi-common3 libbinutils libc-dev-bin
  libc6-dev libcc1-0 libcilkrts5 libcups2 libcupsfilters1 libcupsimage2 libdpkg-perl
  libfakeroot libfile-fcntllock-perl libfontconfig1 libgcc-7-dev libgomp1
  libgraphicsmagick-q16-3 libgs9 libgs9-common libijs-0.35 libisl19 libitm1 libjbig0
  libjbig2dec0 libjpeg-turbo8 libjpeg8 liblcms2-2 liblsan0 libmpc3 libmpx2
  libpaper-utils libpaper1 libpython-stdlib libpython2.7-minimal libpython2.7-stdlib
  libquadmath0 libstdc++-7-dev libtiff5 libtsan0 libubsan0 libwebp6 libwebpmux3
  libwmf0.2-7 linux-libc-dev make manpages-dev mongodb-org-mongos mongodb-org-server
  mongodb-org-shell mongodb-org-tools poppler-data python python-minimal python2.7
  python2.7-minimal
Suggested packages:
```

Inherits & Path

```
root@rocket-server:~# npm install -g inherits n
/usr/bin/n -> /usr/lib/node_modules/n/bin/n
+ inherits@2.0.4
+ n@8.1.0
added 2 packages from 2 contributors in 0.431s
root@rocket-server:~# n 14.18.1
   installing : node-v14.18.1
       mkdir : /usr/local/n/versions/node/14.18.1
       fetch : https://nodejs.org/dist/v14.18.1/node-v14.18.1-linux-x64.tar.xz
   installed : v14.18.1 (with npm 6.14.15)

Note: the node command changed location and the old location may be remembered in your
 current shell.
         old : /usr/bin/node
         new : /usr/local/bin/node
If "node --version" shows the old version then start a new shell, or reset the locatio
n hash with:
hash -r  (for bash, zsh, ash, dash, and ksh)
rehash   (for csh and tcsh)
root@rocket-server:~# hash -r
root@rocket-server:~# PATH="$PATH"
root@rocket-server:~# echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/gam
es:/snap/bin
root@rocket-server:~#
```

## 4.  RocketChat Installation

```
root@rocket-server:~# curl -L https://releases.rocket.chat/latest/download -o /tmp/roc
ket.chat.tgz
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100   132  100   132    0     0    442      0 --:--:-- --:--:-- --:--:--   441
100  165M  100  165M    0     0   32.1M     0  0:00:05  0:00:05 --:--:--  39.4M
root@rocket-server:~# tar -xzf /tmp/rocket.chat.tgz -C /tmp
root@rocket-server:~# cd /tmp/bundle/programs/server && npm install
npm WARN deprecated node-pre-gyp@0.15.0: Please upgrade to @mapbox/node-pre-gyp: the n
on-scoped node-pre-gyp package is deprecated and only the @mapbox scoped package will
recieve updates in the future

> fibers@5.0.1 install /tmp/bundle/programs/server/node_modules/fibers
> node build.js || nodejs build.js

`linux-x64-83-glibc` exists; testing
Binary is fine; exiting
npm WARN lifecycle meteor-dev-bundle@~install: cannot run in wd meteor-dev-bundle@ nod
e npm-rebuild.js (wd=/tmp/bundle/programs/server)
added 157 packages from 85 contributors and audited 157 packages in 7.97s

4 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

root@rocket-server:/tmp/bundle/programs/server# mv /tmp/bundle /opt/Rocket.Chat
root@rocket-server:/tmp/bundle/programs/server#
```

## 5. Configure RocketChat Service

```
root@rocket-server:~# sudo useradd -M rocketchat && sudo usermod -L rocketchat
root@rocket-server:~# sudo chown -R rocketchat:rocketchat /opt/Rocket.Chat
root@rocket-server:~#
```

Configure rocketchat.service file

```
root@rocket-server:/tmp/bundle/programs/server# cat /lib/systemd/system/rocketchat.ser
vice
[Unit]
Description=The Rocket.Chat server
After=network.target remote-fs.target nss-lookup.target nginx.target mongod.target
[Service]
ExecStart=/usr/local/bin/node /opt/Rocket.Chat/main.js
StandardOutput=syslog
StandardError=syslog
SyslogIdentifier=rocketchat
User=rocketchat
Environment=MONGO_URL=mongodb://localhost:27017/rocketchat?replicaSet=rs01 MONGO_OPLOG
_URL=mongodb://localhost:27017/local?replicaSet=rs01 ROOT_URL=http://137.184.3.88:3000
/ PORT=3000
[Install]
WantedBy=multi-user.target
```

```
root@rocket-server:~# vi /lib/systemd/system/rocketchat.service
root@rocket-server:~# sudo sed -i "s/^#  engine:/  engine: mmapv1/"  /etc/mongod.conf
```

```
root@rocket-server:~# sudo sed -i "s/^#replication:/replication:\n  replSetName: rs01/
" /etc/mongod.conf
```

Start MongoDB & Rocketchat service

```
root@rocket-server:~# sudo sed -i "s/^#replication:/replication:\n  replSetName: rs01/ ^
" /etc/mongod.conf
root@rocket-server:~# systemctl enable mongod
Created symlink /etc/systemd/system/multi-user.target.wants/mongod.service → /lib/syst
emd/system/mongod.service.
root@rocket-server:~# systemctl start mongod
root@rocket-server:~# systemctl status mongod
● mongod.service - MongoDB Database Server
   Loaded: loaded (/lib/systemd/system/mongod.service; enabled; vendor preset: enabled
   Active: active (running) since Wed 2022-03-30 01:30:16 UTC; 6s ago
     Docs: https://docs.mongodb.org/manual
 Main PID: 10340 (mongod)
   CGroup: /system.slice/mongod.service
           └─10340 /usr/bin/mongod --config /etc/mongod.conf

Mar 30 01:30:16 rocket-server systemd[1]: Started MongoDB Database Server.
lines 1-9/9 (END)
root@rocket-server:~# mongo --eval "printjson(rs.initiate())"
MongoDB shell version v4.0.28
connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("8a8586d7-16c1-4020-92ac-f5354c9bf919") }
MongoDB server version: 4.0.28
{
        "info2" : "no configuration specified. Using a default configuration for the s
et",
        "me" : "127.0.0.1:27017",
        "ok" : 1
}
root@rocket-server:~#
```

```
root@rocket-server:/tmp/bundle/programs/server# systemctl enable rocketchat
Created symlink /etc/systemd/system/multi-user.target.wants/rocketchat.service → /lib/
systemd/system/rocketchat.service.
root@rocket-server:/tmp/bundle/programs/server# systemctl start rocketchat
root@rocket-server:/tmp/bundle/programs/server# systemctl status rocketchat
● rocketchat.service - The Rocket.Chat server
   Loaded: loaded (/lib/systemd/system/rocketchat.service; enabled; vendor preset: ena
   Active: active (running) since Wed 2022-03-30 02:12:49 UTC; 4s ago
 Main PID: 1546 (node)
    Tasks: 11 (limit: 2361)
   CGroup: /system.slice/rocketchat.service
           └─1546 /usr/local/bin/node /opt/Rocket.Chat/main.js

Mar 30 02:12:49 rocket-server systemd[1]: Started The Rocket.Chat server.
lines 1-9/9 (END)
```

Once the service is working, go to your IP address in the website adding :3000 port
in order to access to rocketchat