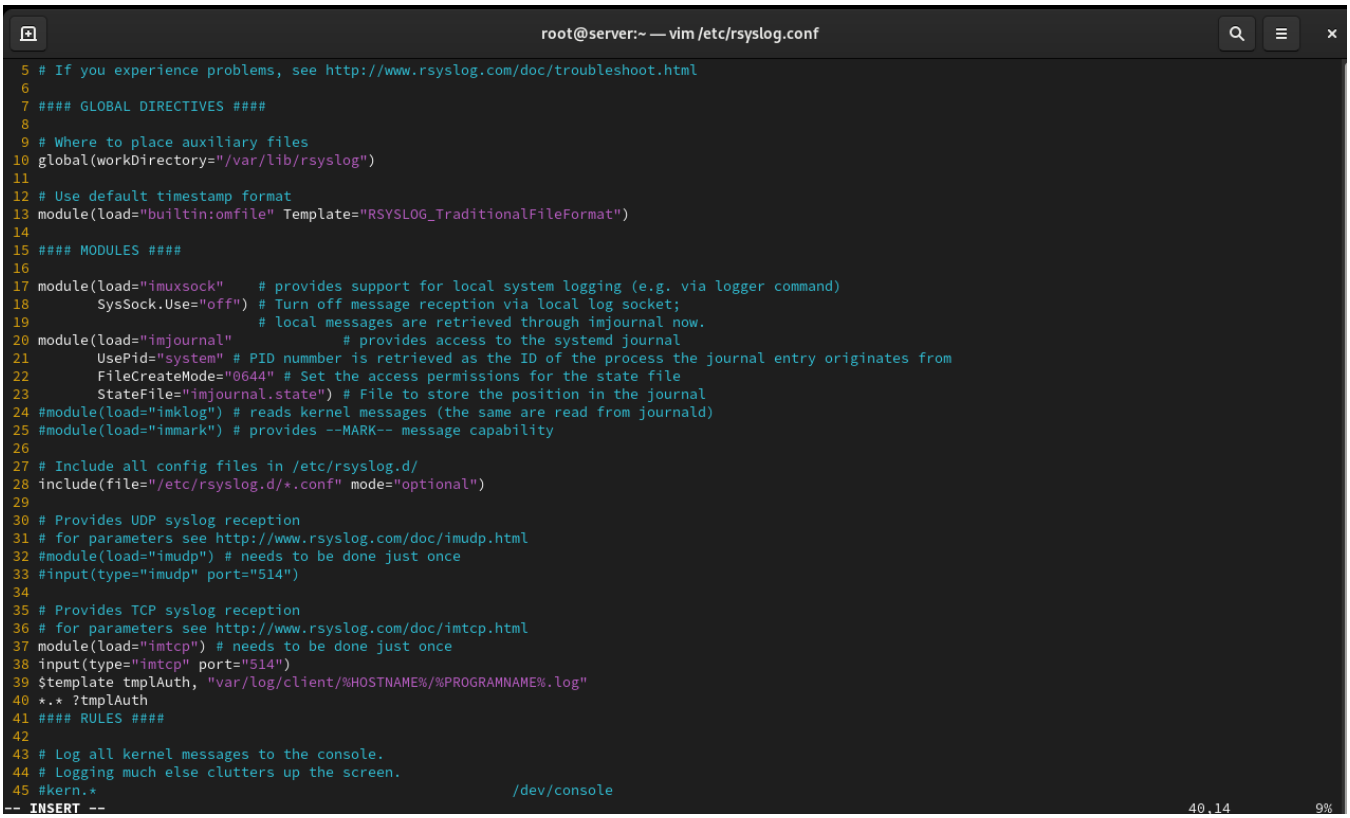
Log Management

Centralized Log:

Add this script in server Machine:

```
[root@server ~]# vim /etc/rsyslog.conf
```

Uncomment line number 37 and 38, add line 40 & 41 write script



You can see client directory

```
[root@server ~]# cd /var/log
[root@server log]# ls
anaconda           boot.log-20250727  cron-20250724    gdm                mail               messages-20250724  secure
audit              boot.log-20250804  cron-20250727    hawkey.log         maillog            messages-20250727  secure
boot.log           btmp               cron-20250804    hawkey.log-20250706 maillog-20250717  messages-20250804  secure
boot.log-20250706  btmp-20250804      cups             hawkey.log-20250717 maillog-20250724  private            secure
boot.log-20250708  chrony            dnf.librepo.log  hawkey.log-20250724 maillog-20250727  qemu-ga            speech
boot.log-20250710  client            dnf.log          hawkey.log-20250804 maillog-20250804  README             spool
boot.log-20250717  cron              dnf.rpm.log      httpd              messages           samba              spool
boot.log-20250724  cron-20250717     firewalld        lastlog            messages-20250717  secure             spool
[root@server log]#
```

Add port 514

```
[root@server ~]# systemctl restart rsyslog.service
[root@server ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client http ssh
  ports: 2021/tcp
  protocols:
  forward: yes
  masquerade: yes
  forward-ports:
        port=22:proto=tcp:toport=2021:toaddr=
  source-ports:
  icmp-blocks:
  rich rules:
[root@server ~]# firewall-cmd --add-port=514/tcp --permanent
success
[root@server ~]# firewall-cmd --reload
success
[root@server ~]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: enp0s3
  sources:
  services: cockpit dhcpv6-client http ssh
  ports: 2021/tcp 514/tcp
  protocols:
  forward: yes
  masquerade: yes
  forward-ports:
        port=22:proto=tcp:toport=2021:toaddr=
  source-ports:
  icmp-blocks:
  rich rules:
[root@server ~]#
```

Client Machine:

```
[root@client ~]# vim /etc/rsyslog.conf
```

Add below text at line no. 82

```
root@client:~ — vim /etc/rsyslog.conf
42 # Log all kernel messages to the console.
43 # Logging much else clutters up the screen.
44 #kern.*                                                 /dev/console
45
46 # Log anything (except mail) of level info or higher.
47 # Don't log private authentication messages!
48 *.info;mail.none;authpriv.none;cron.none                /var/log/messages
49
50 # The authpriv file has restricted access.
51 authpriv.*                                              /var/log/secure
52
53 # Log all the mail messages in one place.
54 mail.*                                                  -/var/log/maillog
55
56
57 # Log cron stuff
58 cron.*                                                  /var/log/cron
59
60 # Everybody gets emergency messages
61 *.emerg                                                 :omusrmsg:*
62
63 # Save news errors of level crit and higher in a special file.
64 uucp,news.crit                                          /var/log/spooler
65
66 # Save boot messages also to boot.log
67 local7.*                                                /var/log/boot.log
68
69
70 # ### sample forwarding rule ###
71 #action(type="omfwd"
72 # # An on-disk queue is created for this action. If the remote host is
73 # # down, messages are spooled to disk and sent when it is up again.
74 #queue.filename="fwdRule1"       # unique name prefix for spool files
75 #queue.maxdiskspace="1g"         # 1gb space limit (use as much as possible)
76 #queue.saveonshutdown="on"       # save messages to disk on shutdown
77 #queue.type="LinkedList"         # run asynchronously
78 #action.resumeRetryCount="-1"    # infinite retries if host is down
79 # # Remote Logging (we use TCP for reliable delivery)
80 # # remote_host is: name/ip, e.g. 192.168.0.1, port optional e.g. 10514
81 #Target="remote_host" Port="XXX" Protocol="tcp")
82 *.* @@192.168.0.3:514
:wq!
```

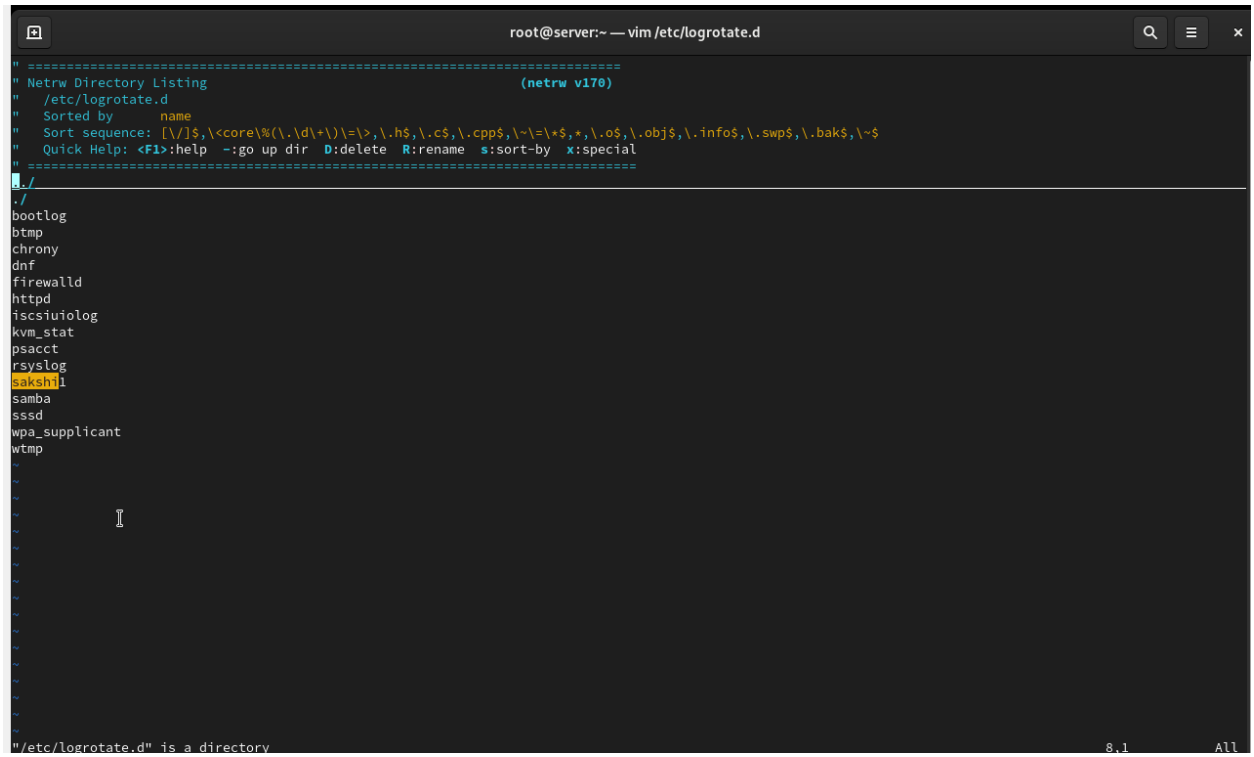
Server Machine: you can see client machine log here

```
[root@server ~]# cd /var/log/client
[root@server client]# ls
client  server
[root@server client]# cd client
[root@server client]# ls
accounts-daemon      cupsd                    gnome-keyring-secrets.desktop  kdumpctl                rtkit-daemon
alsactl              dbus-broker              gnome-keyring-ssh.desktop      kernel                  run-parts
at-spi2-registryd    dbus-broker-lau          gnome-session                  lvm                     spice-vdagent
at-spi-bus-launcher  dbus-broker-launch       gnome-session-binary           mcelog                  sshd
auditd               dnf                      gnome-shell                    ModemManager            sssd_kcm
augenrules           dracut-cmdline           gnome-software                 NetworkManager          systemd
avahi-daemon         dracut-initqueue         goa-daemon                     org.gnome.Shell.desktop systemd-coredump
bootctl              fwupd                    goa-identity-se                PackageKit              systemd-fsck
chronyd              gdm-launch-environment]  gsd-color                      packagekitd             systemd-hibernate
colord               gdm-password]            gsd-media-keys                 polkitd                 systemd-journald
crond                gdm-wayland-session      gsd-sharing                    realmd                  systemd-logind
CROND                geoclue                  gsd-usb-protect                rsyslogd                systemd-modules-l
[root@server client]#
```

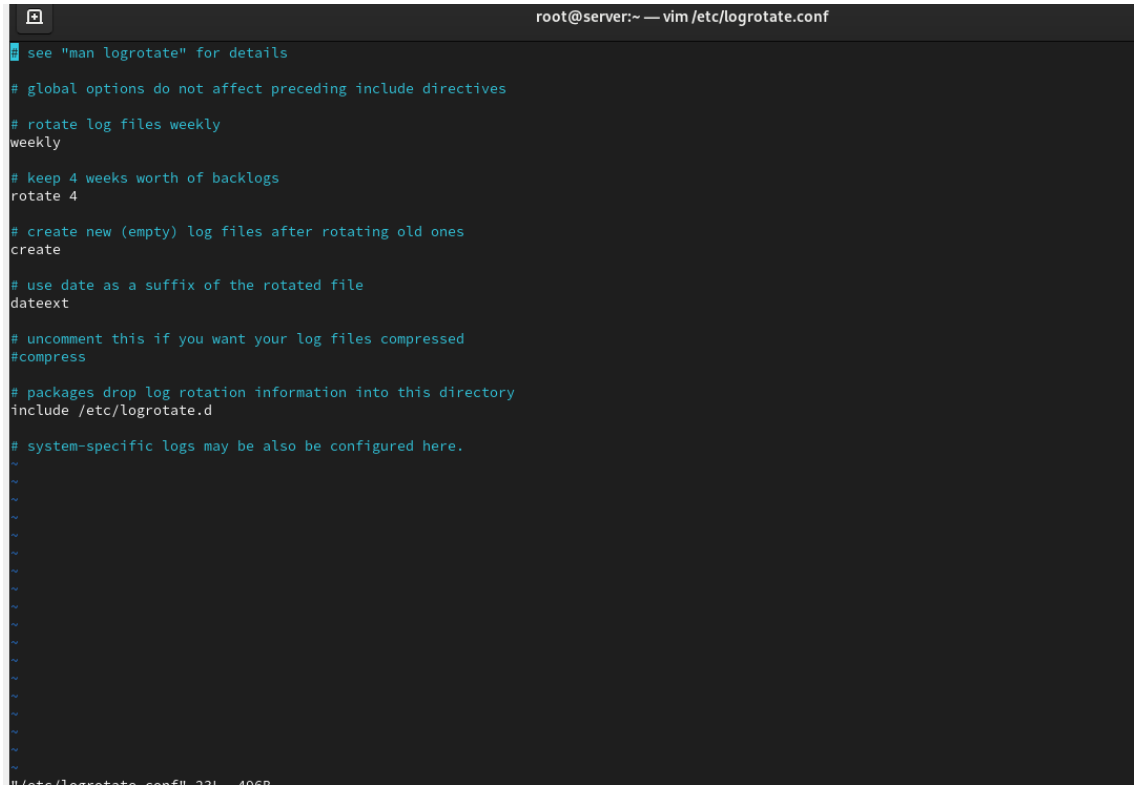
Log Rotation:

Configuration Files-

```
[root@server ~]# vim /etc/logrotate.d
```




```
[root@server ~]# vim /etc/logrotate.conf
```



Create directory to create automatic log

```
[root@server ~]# vim /etc/logrotate.d/sakshi
```

```
root@server:~ — vim /etc/logrotate.d/sakshi
/root/sakshi/*.log{
weekly
missingok
compress
copytruncate
}
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
-- INSERT --
```

Created log file

```
[root@server ~]# mkdir /root/sakshi
[root@server ~]# cd /root/sakshi
[root@server sakshi]# ls
[root@server sakshi]# cd
[root@server ~]# echo "hello Sakshi, this sample log" > /root/sakshi/file.log
[root@server ~]# cd /root/sakshi
[root@server sakshi]# ls
file.log
[root@server sakshi]# cat file.log
hello Sakshi, this sample log
[root@server sakshi]#
```

Compress log file

```
[root@server ~]# logrotate -f /etc/logrotate.conf
error: destination /var/log/btmp-20250812 already exists, skipping rotation
error: destination /var/log/firewalld-20250812 already exists, skipping rotation
error: destination /var/log/httpd/error_log-20250812 already exists, skipping rotation
error: destination /var/log/cron-20250812 already exists, skipping rotation
error: destination /var/log/maillog-20250812 already exists, skipping rotation
error: destination /var/log/messages-20250812 already exists, skipping rotation
error: destination /var/log/secure-20250812 already exists, skipping rotation
error: destination /var/log/spooler-20250812 already exists, skipping rotation
error: destination /root/sakshi/file.log-20250812.gz already exists, skipping rotation
error: stat of /root/sakshi1/*.log failed: Not a directory
error: destination /var/log/wtmp-20250812 already exists, skipping rotation
[root@server ~]# cd /root/sakshi
[root@server sakshi]# ls
file.log  file.log-20250812.gz
[root@server sakshi]#
```

Unzip log file so that you can use

```
[root@server sakshi]# gunzip file.log-20250812.gz
[root@server sakshi]# ls
file.log  file.log-20250812
[root@server sakshi]#
```