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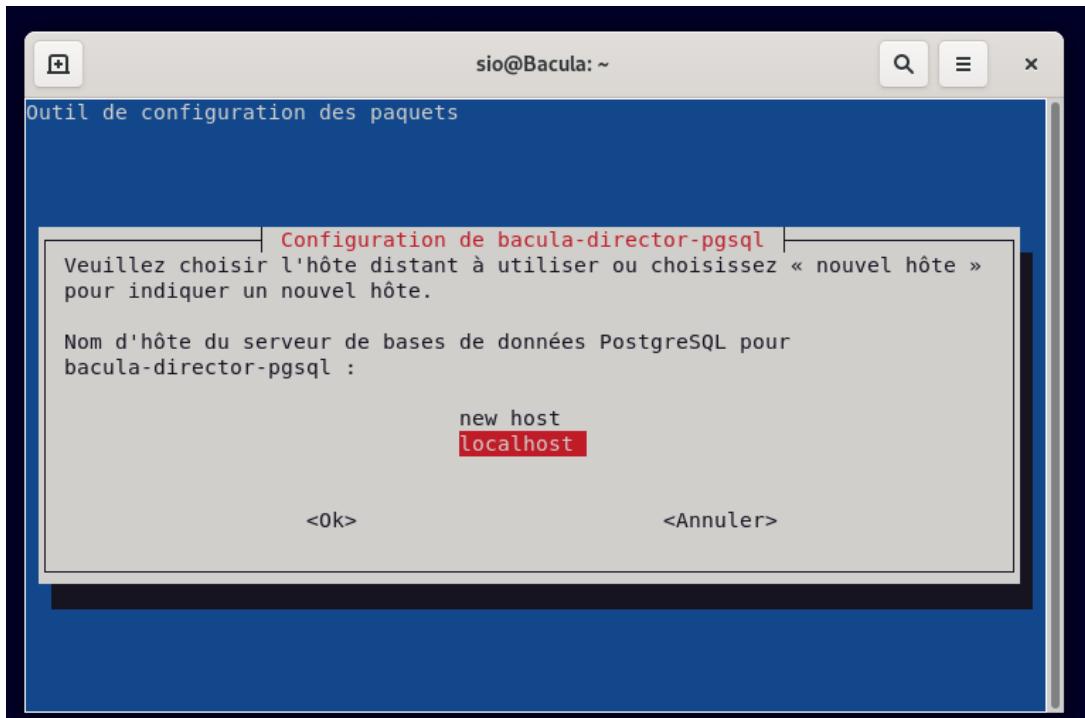
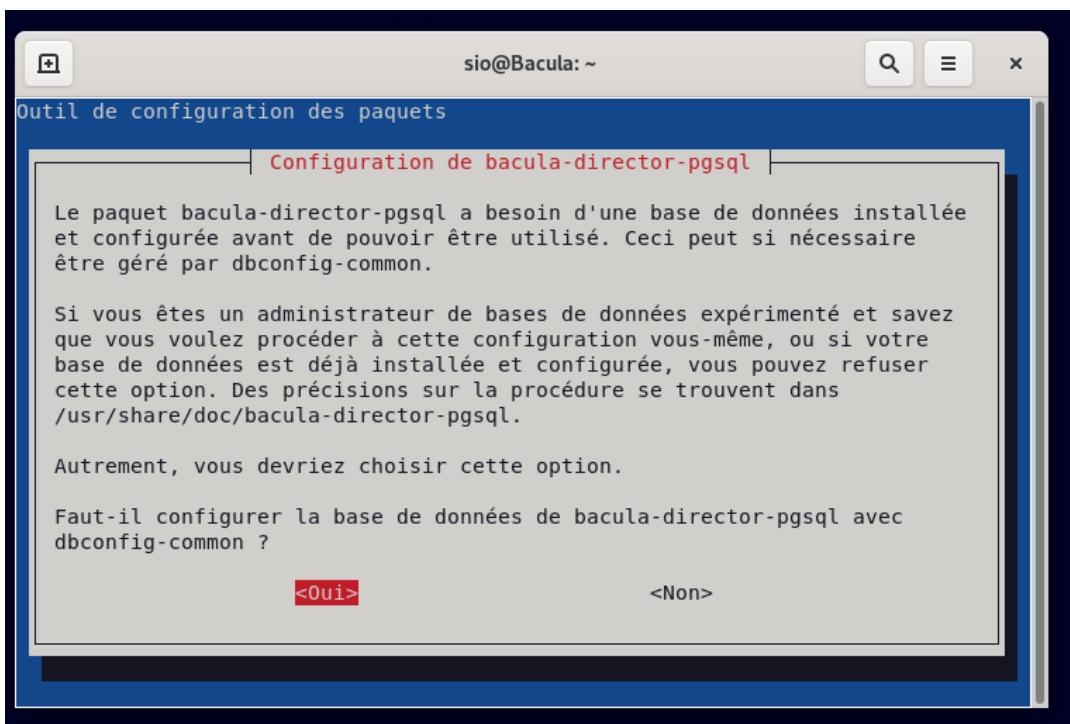
5 – Configuration du client

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2 – Installation du serveur de sauvegarde

```
root@Bacula:~# apt-get install bacula bacula-console-qt
```





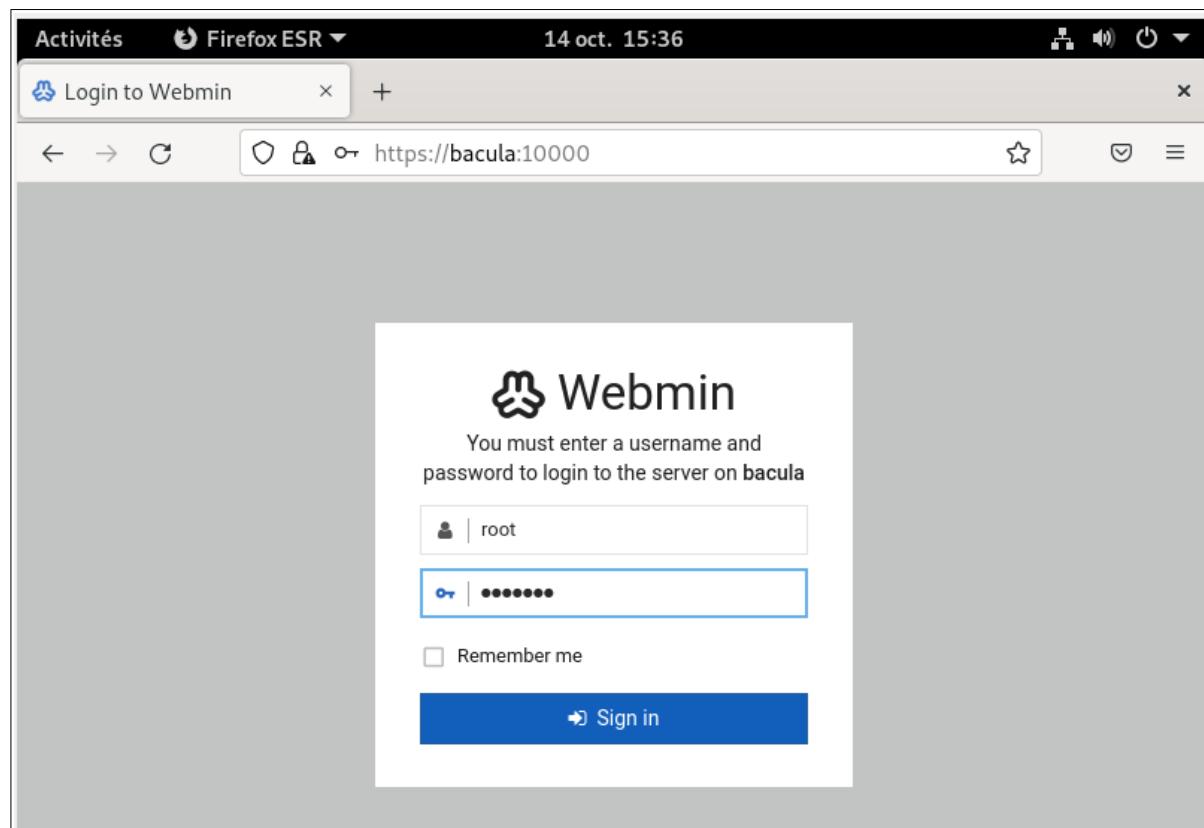
```
root@Bacula:~# apt-get install libnet-ssleay-perl libauthen-pam-perl libio-pty-perl apt-show-versions python
```

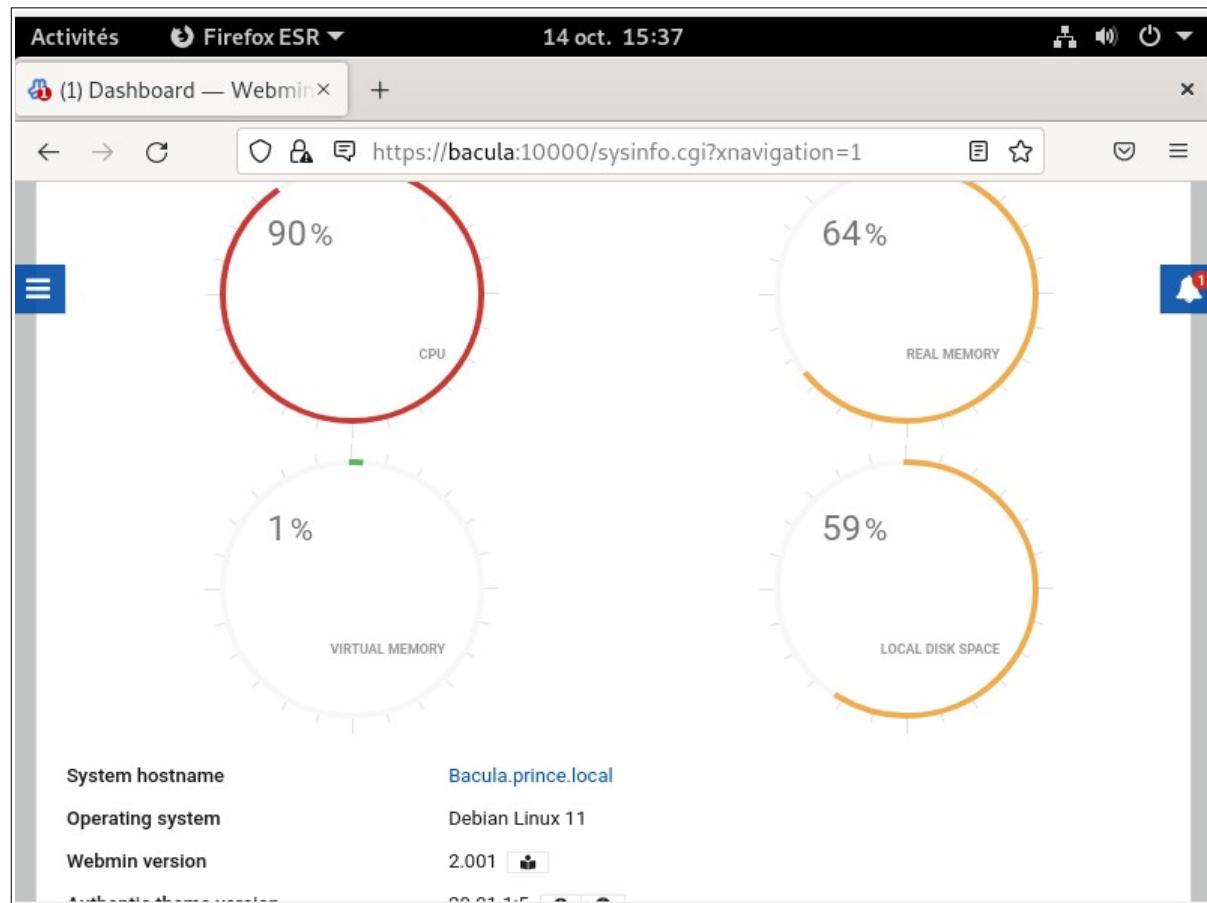
```
root@Bacula:~# wget https://sourceforge.net/projects/webadmin/files/webmin/2.001/webmin_2.001_all.deb/download
```

```
root@Bacula:~# dpkg --install download
Sélection du paquet webmin précédemment désélectionné.
(Lecture de la base de données... 143961 fichiers et répertoires déjà installés.
)
Préparation du dépaquetage de download ...
Dépaquetage de webmin (2.001) ...
Paramétrage de webmin (2.001) ...
```

```
root@Bacula:~# apt-get install unzip
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
unzip est déjà la version la plus récente (6.0-26+deb11u1).
unzip passé en « installé manuellement ».
0 mis à jour, 0 nouvellement installés, 0 à enlever et 5 non mis à jour.
```

```
sio@Bacula:~$ su -
Mot de passe :
root@Bacula:~# ss -ln4
Netid  State  Recv-Q  Send-Q  Local Address:Port      Peer Address:Port Process
udp    UNCONN  0        0        0.0.0.0:58700        0.0.0.0:*
udp    UNCONN  0        0        0.0.0.0:631          0.0.0.0:*
udp    UNCONN  0        0        0.0.0.0:10000        0.0.0.0:*
udp    UNCONN  0        0        0.0.0.0:5353         0.0.0.0:*
tcp    LISTEN  0        50      127.0.0.1:9101        0.0.0.0:*
tcp    LISTEN  0        50      127.0.0.1:9102        0.0.0.0:*
tcp    LISTEN  0        50      127.0.0.1:9103        0.0.0.0:*
tcp    LISTEN  0        4096    0.0.0.0:10000        0.0.0.0:*
tcp    LISTEN  0        128     127.0.0.1:631          0.0.0.0:*
tcp    LISTEN  0        244     127.0.0.1:5432        0.0.0.0:*
tcp    LISTEN  0        20      127.0.0.1:25          0.0.0.0:*
root@Bacula:~#
```





3 – Propriétés TCPIP de l'interface réseau du serveur

```
root@Bacula:~# apt-get install resolvconf
```

```
GNU nano 5.4          /etc/hosts
sio@Bacula: ~
127.0.0.1      localhost
192.168.4.1    Bacula.intra.sio-exupery.fr      Bacula

# The following lines are desirable for IPv6 capable hosts
::1      localhost ip6-localhost ip6-loopback
ff02::1  ip6-allnodes
ff02::2  ip6-allrouters
```

```
GNU nano 5.4          /etc/network/interfaces
sio@Bacula: ~
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.*

# The loopback network interface
auto lo
iface lo inet loopback

#
allow-hotplug enp0s3
iface enp0s3 inet static
address 192.168.4.1
netmask 255.255.255.0
network 192.168.4.0
broadcast 192.168.4.255
gateway 192.168.4.254
dns-search intra.sio-exupery.fr
dns-domain intra.sio-exupery.fr
dns-nameservers 192.168.4.254
```

```
root@Bacula:~# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default
  qdisc mq
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 brd 0.0.0.0 scope host lo
      valid_lft forever preferred_lft forever
    inet6 ::1/128 brd 0.0.0.0 scope host
      valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP
  group default qlen 1000
    link/ether 08:00:27:07:cb:a8 brd ff:ff:ff:ff:ff:ff
    inet 192.168.4.1/24 brd 192.168.4.255 scope global enp0s3
      valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe07:cba8/64 brd fe80::ff:fe07:cba8/64 scope link tentative
      valid_lft forever preferred_lft forever
```

```
root@Bacula:~# ip r
default via 192.168.4.254 dev enp0s3 onlink
192.168.4.0/24 dev enp0s3 proto kernel scope link src 192.168.4.1
```

```
root@Bacula:~# cat /etc/resolv.conf
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#           DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN
# 127.0.0.53 is the systemd-resolved stub resolver.
# run "resolvectl status" to see details about the actual nameservers.

nameserver 192.168.4.254
nameserver 172.17.254.1
nameserver 80.10.246.2
search intra.sio-exupery.fr prince.local
```

```
GNU nano 5.4                               /var/cache/bind/db.intra.sio-exupery.fr *
$ORIGIN .
$TTL 86400      ; 1 day
intra.sio-exupery.fr    IN SOA  DS1.intra.sio-exupery.fr. root.intra.sio-exupery.fr. (
                                2019020713 ; serial
                                604800    ; refresh (1 week)
                                86400     ; retry (1 day)
                                2419200   ; expire (4 weeks)
                                604800    ; minimum (1 week)
)
NS      DS1.intra.sio-exupery.fr.
$ORIGIN intra.sio-exupery.fr.
DS1      IN  A   192.168.4.254
DEB11Server  IN  A   192.168.4.1
```

```
root@DS1: ~#systemctl restart bind9
```

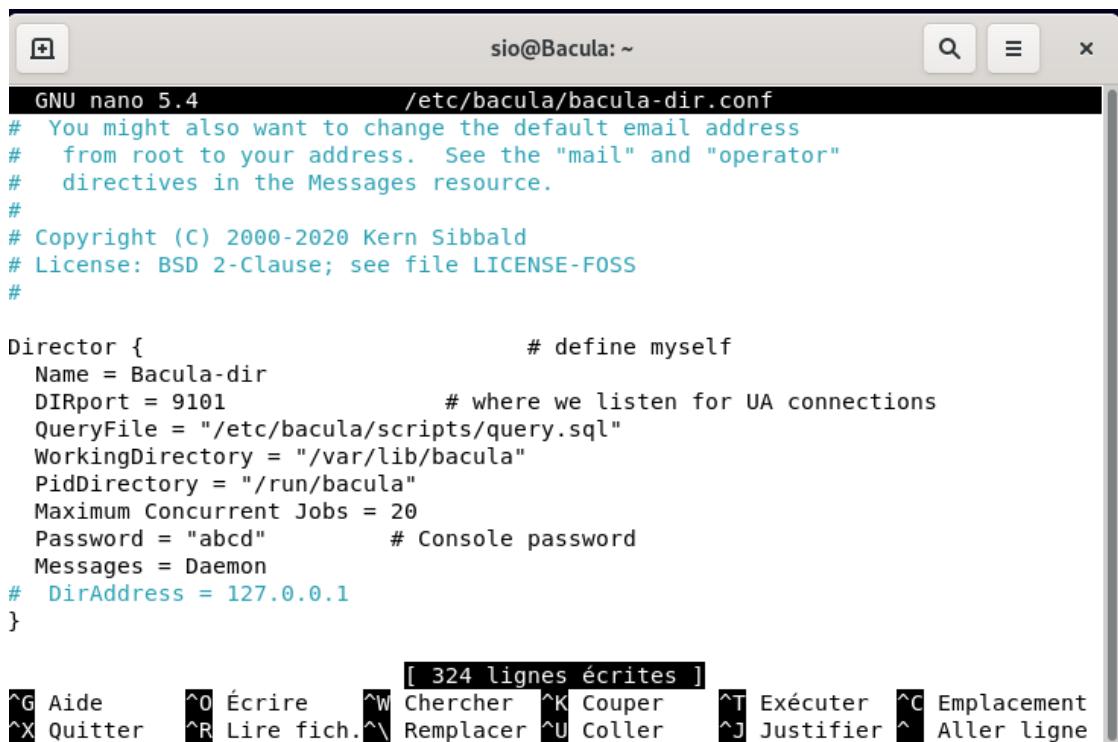
4 – Configuration de base du serveur

```
root@Bacula:~# mkdir /backup
root@Bacula:~# chown bacula /backup
```

```
root@Bacula:~# ss -ltnp | grep bacula
LISTEN 0      50          127.0.0.1:9101          0.0.0.0:*      users:(("bacula-dir",
pid=1255,fd=4))
LISTEN 0      50          127.0.0.1:9102          0.0.0.0:*      users:(("bacula-fd",p
id=541,fd=3))
LISTEN 0      50          127.0.0.1:9103          0.0.0.0:*      users:(("bacula-sd",p
id=542,fd=3))
```

```
root@Bacula:~# cat /etc/bacula/common_default_passwords
#
# This file has been autogenerated during package installation and
# holds defaults for new Bacula packages installed on this system. It
# is used only when you install a new Bacula package, and can be
# safely removed at any time.

DIRPASSWD=bo_fyncjpSI0i1s8bGW5gkzbHGyS5Pz2c
DIRMPASSWD=MMdC0X8sFOErJ-j0jgS6ltQI0b2YS0mLT
SDPASSWD=7k1wvW7GvCyR5zyz-5-pKcq_rlmAy4Xj
SDMPASSWD=o68IdUNllFRSlhfLPAnnDJI0tKUb1FBs
FDPPASSWD=Cz16Y4RiaztgKem0FKqJuwai4NLvhhu7p
FDMPASSWD=f 7SPLiNEOpVnseDjocwRybfpKIrjAdRj
```



```
GNU nano 5.4          /etc/bacula/bacula-dir.conf
# You might also want to change the default email address
#   from root to your address.  See the "mail" and "operator"
#   directives in the Messages resource.
#
# Copyright (C) 2000-2020 Kern Sibbald
# License: BSD 2-Clause; see file LICENSE-FOSS
#
Director {                      # define myself
  Name = Bacula-dir
  DIRport = 9101                  # where we listen for UA connections
  QueryFile = "/etc/bacula/scripts/query.sql"
  WorkingDirectory = "/var/lib/bacula"
  PidDirectory = "/run/bacula"
  Maximum Concurrent Jobs = 20
  Password = "abcd"              # Console password
  Messages = Daemon
#  DirAddress = 127.0.0.1
}

[ 324 lignes écrites ]
^G Aide      ^O Écrire      ^W Chercher      ^K Couper      ^T Exécuter      ^C Emplacement
^X Quitter   ^R Lire fich.  ^\ Remplacer   ^U Coller      ^J Justifier  ^ Aller ligne
```

GNU nano 5.4 /etc/bacula/bacula-dir.conf *

```
# and to the console
Messages {
  Name = Standard
#
# NOTE! If you send to two email or more email addresses, you will need
# to replace the %r in the from field (-f part) with a single valid
# email address in both the mailcommand and the operatorcommand.
# What this does is, it sets the email address that emails would display
# in the FROM field, which is by default the same email as they're being
# sent to. However, if you send email to more than one address, then
# you'll have to set the FROM address manually, to a single address.
# for example, a 'no-reply@mydomain.com', is better since that tends to
# tell (most) people that its coming from an automated source.

#
mailcommand = "/usr/sbin/bsmtp -h localhost -f \"\$(Bacula) \<%r\>\" -s \"Bac
operatorcommand = "/usr/sbin/bsmtp -h localhost -f \"\$(Bacula) \<%r\>\" -s \"
mail = rodolphe@free.fr = all, !skipped
operator = root = mount
console = all, !skipped, !saved

^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich. ^\ Remplacer ^U Coller      ^J Justifier ^  Aller ligne
```

GNU nano 5.4 /etc/bacula/bacula-dir.conf *

```
#
# Message delivery for daemon messages (no job).
Messages {
  Name = Daemon
  mailcommand = "/usr/sbin/bsmtp -h localhost -f \"\$(Bacula) \<%r\>\" -s \"Bac
  mail = rodolphe@free.fr = all, !skipped
  console = all, !skipped, !saved
  append = "/var/log/bacula/bacula.log" = all, !skipped
}

# Default pool definition
Pool {
  Name = Default
  Pool Type = Backup
  Recycle = yes          # Bacula can automatically recycle Volumes
  AutoPrune = yes        # Prune expired volumes
  Volume Retention = 365 days # one year
  Maximum Volume Bytes = 50G # Limit Volume size to something reasonable
  Maximum Volumes = 100   # Limit number of Volumes in Pool

^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich. ^\ Remplacer ^U Coller      ^J Justifier ^  Aller ligne
```

```
GNU nano 5.4          /etc/bacula/bacula-dir.conf *
# Catalog = MyCatalog
# Password = "Cz16Y4RiaztgKem0FKqJuwai4NLvhhu7p2"      # password for FileDa>
# File Retention = 60 days      # 60 days
# Job Retention = 6 months      # six months
# AutoPrune = yes      # Prune expired Jobs/Files
#}

# Definition of file Virtual Autochanger device
Autochanger {
  Name = File1
# Do not use "localhost" here
  Address = 192.168.4.1      # N.B. Use a fully qualified name here
  SDPort = 9103
  Password = "abcd"
  Device = FileChgr1
  Media Type = File1
  Maximum Concurrent Jobs = 10      # run up to 10 jobs a the same time
  Autochanger = File1      # point to ourself
}

^G Aide      ^O Écrire      ^W Chercher      ^K Couper      ^T Exécuter      ^C Emplacement
^X Quitter    ^R Lire fich. ^\ Remplacer ^U Coller      ^J Justifier ^  Aller ligne
```

```
root@Bacula:~# bacula-dir -t
root@Bacula:~# systemctl restart bacula-director
```

```
GNU nano 5.4          /etc/bacula/bacula-sd.conf *
# resource. If you change the Name and/or the
# "Media Type" in the Device resource, please ensure
# that dird.conf has corresponding changes.
#
#
# Copyright (C) 2000-2020 Kern Sibbald
# License: BSD 2-Clause; see file LICENSE-FOSS
#
Storage {                      # definition of myself
  Name = Bacula-sd
  SDPort = 9103      # Director's port
  WorkingDirectory = "/var/lib/bacula"
  Pid Directory = "/run/bacula"
  Plugin Directory = "/usr/lib/bacula"
  Maximum Concurrent Jobs = 20
#  SDAddress = 127.0.0.1
}

^G Aide      ^O Écrire      ^W Chercher      ^K Couper      ^T Exécuter      ^C Emplacement
^X Quitter    ^R Lire fich. ^\ Remplacer ^U Coller      ^J Justifier ^  Aller ligne
```

GNU nano 5.4 /etc/bacula/bacula-dir.conf

```
#   from root to your address.  See the "mail" and "operator"
#   directives in the Messages resource.
#
# Copyright (C) 2000-2020 Kern Sibbald
# License: BSD 2-Clause; see file LICENSE-FOSS
#


Director {                                # define myself
  Name = Bacula-dir
  DIRport = 9101                      # where we listen for UA connections
  QueryFile = "/etc/bacula/scripts/query.sql"
  WorkingDirectory = "/var/lib/bacula"
  PidDirectory = "/run/bacula"
  Maximum Concurrent Jobs = 20
  Password = "abcd"          # Console password
  Messages = Daemon
#  DirAddress = 127.0.0.1
}

JobDefs {
```

^G Aide ^O Écrire ^W Chercher ^K Couper ^T Exécuter ^C Emplacement
^X Quitter ^R Lire fich.^\\ Remplacer ^U Coller ^J Justifier ^ Aller ligne

GNU nano 5.4 /etc/bacula/bacula-sd.conf

```
# List Directors who are permitted to contact Storage daemon
#
Director {
  Name = Bacula-dir
  Password = "abcd"
}

#
# Restricted Director, used by tray-monitor to get the
#   status of the storage daemon
#
Director {
  Name = Bacula-mon
  Password = "o68IdUNLlFRSlihfLPAnnDJI0tKUb1FBs"
  Monitor = yes
}

#
[ 335 lignes écrites ]
^G Aide ^O Écrire ^W Chercher ^K Couper ^T Exécuter ^C Emplacement
^X Quitter ^R Lire fich.^\\ Remplacer ^U Coller ^J Justifier ^ Aller ligne
```

```
GNU nano 5.4          /etc/bacula/bacula-sd.conf
sio@Bacula: ~

Name = FileChgr1
Device = FileChgr1-Dev1, FileChgr1-Dev2
Changer Command = ""
Changer Device = /dev/null
}

Device {
    Name = FileChgr1-Dev1
    Media Type = File1
    Archive Device = /backup
    LabelMedia = yes;                      # lets Bacula label unlabeled media
    Random Access = Yes;
    AutomaticMount = yes;                  # when device opened, read it
    RemovableMedia = no;
    AlwaysOpen = no;
    Maximum Concurrent Jobs = 5
}

Device {
    Name = FileChgr1-Dev2
}
[ 335 lignes écrites ]
^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich. ^\ Remplacer  ^U Coller      ^J Justifier ^_ Aller ligne
```

```
GNU nano 5.4          /etc/bacula/bacula-sd.conf *
sio@Bacula: ~

# same Name and MediaType.
#
#
# Define a Virtual autochanger
#
Autochanger {
    Name = FileChgr1
    Device = FileChgr1-Dev1,
#, FileChgr1-Dev2
    Changer Command = ""
    Changer Device = /dev/null
}

Device {
    Name = FileChgr1-Dev1
    Media Type = File1
    Archive Device = /backup
    LabelMedia = yes;                      # lets Bacula label unlabeled media
    Random Access = Yes;
}
[ 335 lignes écrites ]
^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich. ^\ Remplacer  ^U Coller      ^J Justifier ^_ Aller ligne
```

```
sio@Bacula: ~
GNU nano 5.4          /etc/bacula/bacula-sd.conf *
AutomaticMount = yes;          # when device opened, read it
RemovableMedia = no;
AlwaysOpen = no;
Maximum Concurrent Jobs = 5
}

#Device {
#  Name = FileChgr1-Dev2
#  Media Type = File1
#  Archive Device = /nonexistent/path/to/file/archive/dir
#  LabelMedia = yes;          # lets Bacula label unlabeled media
#  Random Access = Yes;
#  AutomaticMount = yes;          # when device opened, read it
#  RemovableMedia = no;
#  AlwaysOpen = no;
#  Maximum Concurrent Jobs = 5
#}

#
# Define a second Virtual autochanger

^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich.  ^\ Remplacer  ^U Coller   ^J Justifier ^  Aller ligne
```

```
sio@Bacula: ~
GNU nano 5.4          /etc/bacula/bacula-sd.conf *

#Device {
#  Name = FileChgr1-Dev2
#  Media Type = File1
#  Archive Device = /nonexistent/path/to/file/archive/dir
#  LabelMedia = yes;          # lets Bacula label unlabeled media
#  Random Access = Yes;
#  AutomaticMount = yes;          # when device opened, read it
#  RemovableMedia = no;
#  AlwaysOpen = no;
#  Maximum Concurrent Jobs = 5
#}

#
# Define a second Virtual autochanger
# 

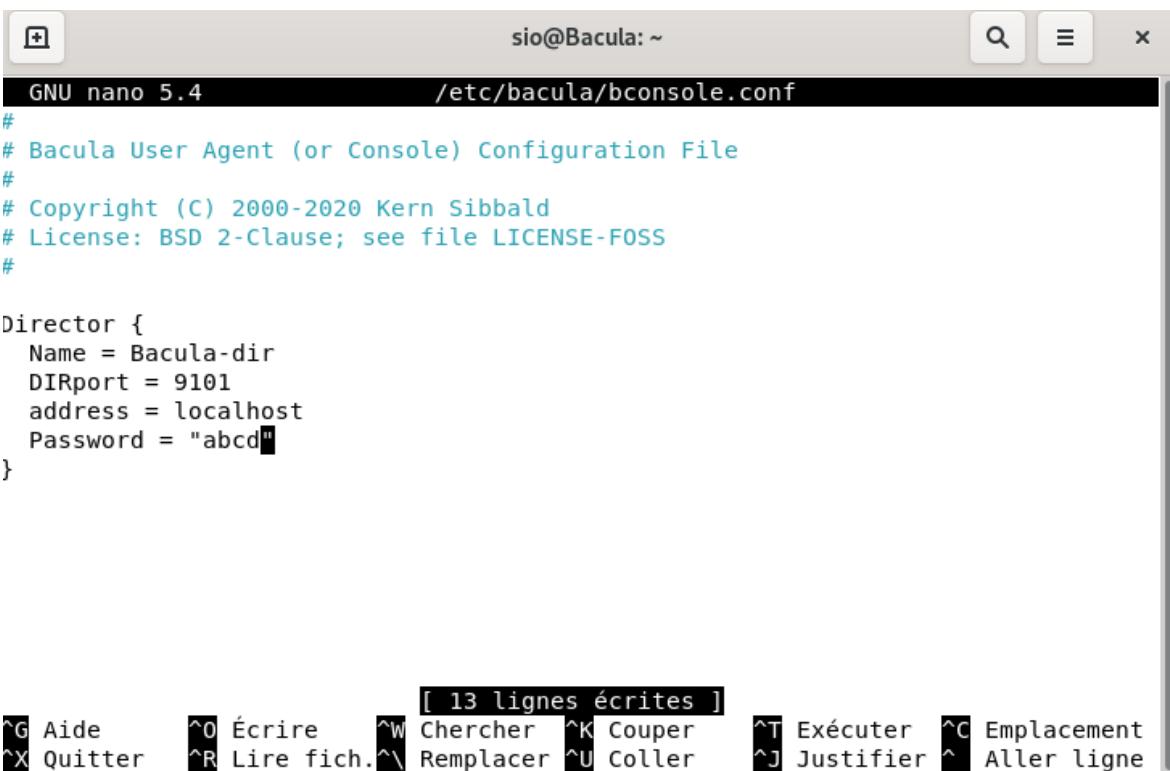
#Autochanger {
#  Name = FileChgr2
#  Device = FileChgr2-Dev1, FileChgr2-Dev2
#  Changer Command = ""

^G Aide      ^O Écrire      ^W Chercher  ^K Couper      ^T Exécuter  ^C Emplacement
^X Quitter   ^R Lire fich.  ^\ Remplacer  ^U Coller   ^J Justifier ^  Aller ligne
```

```
#Device {
#  Name = FileChgr2-Devl
#  Media Type = File2
#  Archive Device = /nonexistent/path/to/file/archive/dir
#  LabelMedia = yes;                      # lets Bacula label unlabeled media
#  Random Access = Yes;
#  AutomaticMount = yes;                  # when device opened, read it
#  RemovableMedia = no;
#  AlwaysOpen = no;
#  Maximum Concurrent Jobs = 5
#}
```

```
root@Bacula:~# bacula-sd -t
root@Bacula:~# systemctl restart bacula-sd
```

```
root@Bacula:~# ss -ltnp | grep bacula
LISTEN 0      50          0.0.0.0:9101      0.0.0.0:*      users:(("bacula-dir",
pid=2296,fd=4))
LISTEN 0      50          127.0.0.1:9102     0.0.0.0:*      users:(("bacula-fd",p
id=541,fd=3))
LISTEN 0      50          0.0.0.0:9103      0.0.0.0:*      users:(("bacula-sd",p
id=2421,fd=3))
```



```
GNU nano 5.4          /etc/bacula/bconsole.conf

#
# Bacula User Agent (or Console) Configuration File
#
# Copyright (C) 2000-2020 Kern Sibbald
# License: BSD 2-Clause; see file LICENSE-FOSS
#


Director {
  Name = Bacula-dir
  DIRport = 9101
  address = localhost
  Password = "abcd"
}
```

[13 lignes écrites]

^G Aide ^O Écrire ^W Chercher ^K Couper ^T Exécuter ^C Emplacement
^X Quitter ^R Lire fich. ^\ Remplacer ^U Coller ^J Justifier ^ Aller ligne

```
root@Bacula:~# bconsole
Connecting to Director localhost:9101
1000 OK: 103 Bacula-dir Version: 9.6.7 (10 December 2020)
Enter a period to cancel a command.
*
```

```
*help label
  Command      Description
  =====      ========
  label        Label a tape
```

```
Arguments:
      storage=<storage> volume=<vol> pool=<pool> slot=<slot> drive=<nb> barcod
es
```

When at a prompt, entering a period cancels the command.

```
*label
Automatically selected Catalog: MyCatalog
Using Catalog "MyCatalog"
The defined Storage resources are:
  1: File1
  2: File2
Select Storage resource (1-2): 1
Connecting to Storage daemon File1 at 192.168.4.1:9103 ...
Enter new Volume name: Vol1
Enter slot (0 or Enter for none): 0
Defined Pools:
  1: Default
  2: File
  3: Scratch
Select the Pool (1-3): 2
Connecting to Storage daemon File1 at 192.168.4.1:9103 ...
Sending label command for Volume "Vol1" Slot 0 ...
3000 OK label. VolBytes=212 VolABytes=0 VolType=1 Volume="Vol1" Device="FileChgr1-Dev1" (/backup)
Catalog record for Volume "Vol1", Slot 0  successfully created.
Requesting to mount FileChgr1 ...
3906 File device ""FileChgr1-Dev1" (/backup)" is always mounted.
```