CentOS7 and simple dnsmasq

This presentation sets up dnsmasq on CentOS 7.

The narration has not been added.

Preuss
11/7/2019

Player

Applications   Places   Terminal
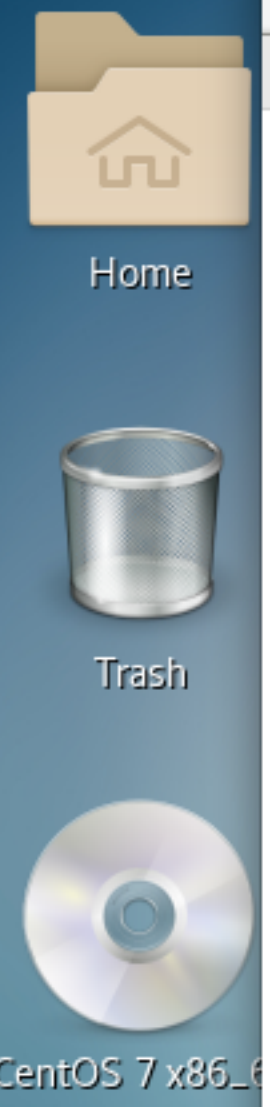
Thu Nov 7, 16:36

preuss@red-vm:/home/preuss

File   Edit   View   Search   Terminal   Help

[root@red-vm preuss]#

Home

Trash

CentOS 7 x86_6

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preuss@red-vm:/home/preuss

File   Edit   View   Search   Terminal   Help

```
[root@red-vm preuss]# yum install dnsmasq
```

Home

Trash

CentOS 7 x86_6

File   Edit   View   Search   Terminal   Help

```
[root@red-vm preuss]# yum install dnsmasq
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
 * base: centos-distro.1gservers.com
 * epel: pubmirror2.math.uh.edu
 * extras: mirror.atlantic.net
 * updates: bay.uchicago.edu
Package dnsmasq-2.76-10.el7_7.1.x86_64 already installed and latest version
Nothing to do
[root@red-vm preuss]#
```

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Applications   Places   Terminal

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Trash

CentOS 7 x86_6

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File   Edit   View   Search   Terminal   Help

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[root@red-vm preuss]# yum install dnsmasq
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File   Edit   View   Search   Terminal   Help

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Loaded plugins: fastestmirror, langpacks
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 * base: centos-distro.1gservers.com
 * epel: csc.mcs.sdsmt.edu
 * extras: mirror.atlantic.net
 * updates: bay.uchicago.edu
Package dnsmasq-2.76-10.el7_7.1.x86_64 already installed and latest version
Nothing to do
[root@red-vm preuss]#
```

Home

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CentOS 7 x86_6

Applications   Places   Terminal

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preuss@red-vm:/home/preuss

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[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02

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preuss@red-vm:/home/preuss

File   Edit   View   Search   Terminal   Help

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf  /etc/dnsmasq.conf.02  /etc/dnsmasq.conf.1  /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]#
```

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CentOS 7 x86_6

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CentOS 7 x86_64

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Videos

CentOS ...

+ Other Locations

All Source

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Thu Nov 7, 16:43

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CentOS 7 x86_64

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Recent

Home   home   preuss

Documents   Name   Size   Modified

Downloads   bin   Mon
                    boot   25 Oct
Music   dev   16:33
                    etc   16:39
Pictures   home   5 Sep
                    lib   12 Sep
Videos   lib64   24 Oct
                    media   10 Apr 2018
CentOS ...   mnt   25 Oct
                    opt   5 Sep
Other Locations   proc   09:29
                    root   16:36
                    run   16:38
                    sbin   Mon
                    srv   10 Apr 2018
                    sys   09:29
                    tmp   16:42
                    usr   5 Sep
                    var   5 Sep

                    All Source

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Cancel

Open File

Open

Recent

etc

Name	Size	Modified
cron.hourly		27 Sep
cron.monthly		9 Jun 2014
cron.weekly		9 Jun 2014
cups		16:29
cupshelpers		5 Sep
dbus-1		5 Sep
dconf		5 Sep
default		27 Sep
depmod.d		27 Sep
dhcp		Tue
dleyna-server-service.conf	1.2 kB	10 Apr 2018
dnsmasq.conf	26.8 kB	16:21
dnsmasq.d		18 Oct
dracut.conf	1.3 kB	8 Aug
dracut.conf.d		27 Sep
e2fsck.conf	112 bytes	6 Aug
egl		5 Sep
exports.d		8 Aug
fcoe		5 Sep
festival		5 Sep
firefox		23 Oct
firewalld		24 Oct
flatpak		5 Sep
fonts		5 Sep

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Applications   Places   SciTE Text Editor   Thu Nov 7, 16:43

dnsmasq.conf - SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf

Toggle current fold
Toggle all folds

☐ Full Screen   F11
☐ Tool Bar
☑ Tab Bar
☐ Status Bar

☐ Whitespace   Shift+Ctrl+A
☐ End of Line   Shift+Ctrl+D
☑ Indentation Guides
☐ Line Numbers
☑ Margin
☑ Fold Margin
☐ Output   F8
☐ Parameters

Configuration f
#
Format is one o
as the long opti
"/usr/sbin/dnsm

Listen on this s
(53). Setting th
leaving only DF
#port=5353

The following t
tell dnsmasq to
answer, and wh
unnecessarily.
these requests

Never forward
#domain-needed
Never forward
#bogus-priv

Uncomment the
(Requires dnsm
#conf-file=%%PREFIX%%/share/dnsmasq/trust-anchors.conf
#dnssec

Replies which are not DNSSEC signed may be legitimate, because the domain
is unsigned, or may be forgeries. Setting this option tells dnsmasq to
check that an unsigned reply is OK, by finding a secure proof that a DS
record somewhere between the root and the domain does not exist.
The cost of setting this is that even queries in unsigned domains will need
one or more extra DNS queries to verify.
#dnssec-check-unsigned

Uncomment this to filter useless windows-originated DNS requests
which can trigger dial-on-demand links needlessly.
Note that (amongst other things) this blocks all SRV requests,
so don't use it if you use eg Kerberos, SIP, XMMP or Google-talk.
This option only affects forwarding, SRV records originating for
dnsmasq (via srv-host= lines) are not suppressed by it.
#filterwin2k

[preuss@red-vm:/home/preuss]   dnsmasq.conf - SciTE   1 / 4

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CentOS 7 x86_64

dnsmasq.conf - SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf

Toggle current fold
Toggle all folds

☐ Full Screen   F11
☐ Tool Bar
☑ Tab Bar
☑ Status Bar
☐ Whitespace   Shift+Ctrl+A
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☑ Margin
☑ Fold Margin
☐ Output   F8
☐ Parameters

Configuration f
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Listen on this s   ort
(53). Setting th   n,
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#port=5353

The following t   they
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answer, and wh   vers)
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these requests

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Note that (amongst other things) this blocks all SRV requests,
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This option only affects forwarding, SRV records originating for

li=1 co=1 INS (LF) R

[preuss@red-vm:/home/preuss]   dnsmasq.conf - SciTE   1 / 4

Player

Applications   Places   SciTE Text Editor

Thu Nov 7, 16:43

dnsmasq.conf * SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf *

```
# Configuration file for dnsmasq.
#
# Format is one option per line, legal options are the same
# as the long options legal on the command line. See
# "/usr/sbin/dnsmasq --help" or "man 8 dnsmasq" for details.

# Listen on this specific port instead of the standard DNS port
# (53). Setting this to zero completely disables DNS function,
# leaving only DHCP and/or TFTP.
port=53

# The following two options make you a better netizen, since they
# tell dnsmasq to filter out queries which the public DNS cannot
# answer, and which load the servers (especially the root servers)
# unnecessarily. If you have a dial-on-demand link they also stop
# these requests from bringing up the link unnecessarily.

# Never forward plain names (without a dot or domain part)
#domain-needed
# Never forward addresses in the non-routed address spaces.
#bogus-priv

# Uncomment these to enable DNSSEC validation and caching:
# (Requires dnsmasq to be built with DNSSEC option.)
#conf-file=%%PREFIX%%/share/dnsmasq/trust-anchors.conf
#dnssec

# Replies which are not DNSSEC signed may be legitimate, because the domain
# is unsigned, or may be forgeries. Setting this option tells dnsmasq to
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# The cost of setting this is that even queries in unsigned domains will need
# one or more extra DNS queries to verify.
#dnssec-check-unsigned

# Uncomment this to filter useless windows-originated DNS requests
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# Note that (amongst other things) this blocks all SRV requests,
# so don't use it if you use eg Kerberos, SIP, XMMP or Google-talk.
# This option only affects forwarding, SRV records originating for
```

li=10 co=1 INS (LF) R

[preuss@red-vm:/home/preuss]   dnsmasq.conf * SciTE

dnsmasq.conf * SciTE

File Edit Search View Tools Options Language Buffers Help

1 dnsmasq.conf *

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# one or more extra DNS queries to verify.
#dnssec-check-unsigned

# Uncomment this to filter useless windows-originated DNS requests
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# Note that (amongst other things) this blocks all SRV requests,
# so don't use it if you use eg Kerberos, SIP, XMMP or Google-talk.
# This option only affects forwarding, SRV records originating for
```

li=19 co=1 INS (LF) R

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Applications   Places   SciTE Text Editor   Thu Nov 7, 16:44

dnsmasq.conf * SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf *

```
# Configuration file for dnsmasq.
#
# Format is one option per line, legal options are the same
# as the long options legal on the command line. See
# "/usr/sbin/dnsmasq --help" or "man 8 dnsmasq" for details.

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#dnssec-check-unsigned

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# Note that (amongst other things) this blocks all SRV requests,
# so don't use it if you use eg Kerberos, SIP, XMMP or Google-talk.
# This option only affects forwarding, SRV records originating for
```

li=21 co=1 INS (LF) R

[preuss@red-vm:/home/preuss]   dnsmasq.conf * SciTE   1 / 4

bogus-priv

Uncomment these to enable DNSSEC validation and caching:
(Requires dnsmasq to be built with DNSSEC option.)
#conf-file=%%PREFIX%%/share/dnsmasq/trust-anchors.conf
#dnssec

Replies which are not DNSSEC signed may be legitimate, because the domain
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Uncomment this to filter useless windows-originated DNS requests
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Note that (amongst other things) this blocks all SRV requests,
so don't use it if you use eg Kerberos, SIP, XMMP or Google-talk.
This option only affects forwarding, SRV records originating for
dnsmasq (via srv-host= lines) are not suppressed by it.
#filterwin2k

Change this line if you want dns to get its upstream servers from
somewhere other that /etc/resolv.conf
#resolv-file=

By default, dnsmasq will send queries to any of the upstream
servers it knows about and tries to favour servers to are known
to be up. Uncommenting this forces dnsmasq to try each query
with each server strictly in the order they appear in
/etc/resolv.conf
strict-order

If you don't want dnsmasq to read /etc/resolv.conf or any other
file, getting its servers from this file instead (see below), then
uncomment this.
#no-resolv

If you don't want dnsmasq to poll /etc/resolv.conf or other resolv

Repeat the line for more than one interface.
#interface=
Or you can specify which interface _not_ to listen on
#except-interface=
Or which to listen on by address (remember to include 127.0.0.1 if
you use this.)
#listen-address=
If you want dnsmasq to provide only DNS service on an interface,
configure it as shown above, and then use the following line to
disable DHCP and TFTP on it.
#no-dhcp-interface=

On systems which support it, dnsmasq binds the wildcard address,
even when it is listening on only some interfaces. It then discards
requests that it shouldn't reply to. This has the advantage of
working even when interfaces come and go and change address. If you
want dnsmasq to really bind only the interfaces it is listening on,
uncomment this option. About the only time you may need this is when
running another nameserver on the same machine.
#bind-interfaces

If you don't want dnsmasq to read /etc/hosts, uncomment the
following line.
#no-hosts
or if you want it to read another file, as well as /etc/hosts, use
this.
#addn-hosts=/etc/banner_add_hosts

Set this (and domain: see below) if you want to have a domain
automatically added to simple names in a hosts-file.
expand-hosts

Set the domain for dnsmasq. this is optional, but if it is set, it
does the following things.
1) Allows DHCP hosts to have fully qualified domain names, as long
as the domain part matches this setting.
2) Sets the "domain" DHCP option thereby potentially setting the
domain of all systems configured by DHCP
3) Provides the domain part for "expand-hosts"
#domain=thekelleys.org.uk

Player

Applications   Places   SciTE Text Editor

Thu Nov 7, 16:45

dnsmasq.conf * SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf *

```
# want dnsmasq to really bind only the interfaces it is listening on,
# uncomment this option. About the only time you may need this is when
# running another nameserver on the same machine.
#bind-interfaces

# If you don't want dnsmasq to read /etc/hosts, uncomment the
# following line.
#no-hosts
# or if you want it to read another file, as well as /etc/hosts, use
# this.
#addn-hosts=/etc/banner_add_hosts

# Set this (and domain: see below) if you want to have a domain
# automatically added to simple names in a hosts-file.
expand-hosts

# Set the domain for dnsmasq. this is optional, but if it is set, it
# does the following things.
# 1) Allows DHCP hosts to have fully qualified domain names, as long
#    as the domain part matches this setting.
# 2) Sets the "domain" DHCP option thereby potentially setting the
#    domain of all systems configured by DHCP
# 3) Provides the domain part for "expand-hosts"
domain=mait01.example.org

# Set a different domain for a particular subnet
#domain=wireless.thekelleys.org.uk,192.168.2.0/24

# Same idea, but range rather then subnet
#domain=reserved.thekelleys.org.uk,192.68.3.100,192.168.3.200

# Uncomment this to enable the integrated DHCP server, you need
# to supply the range of addresses available for lease and optionally
# a lease time. If you have more than one network, you will need to
# repeat this for each network on which you want to supply DHCP
# service.
#dhcp-range=192.168.0.50,192.168.0.150,12h

# This is an example of a DHCP range where the netmask is given. This
# is needed for networks we reach the dnsmasq DHCP server via a relay
```

li=144 co=26 INS (LF) R

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Thu Nov 7, 16:45

Cancel   Name   dnsmasq.conf   Save

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Other Locations

etc

Name	Size	Modified
csh.cshrc	1.6 kB	30 Oct 2018
csh.login	866 bytes	30 Oct 2018
cups		16:29
cupshelpers		5 Sep
dbus-1		5 Sep
dconf		5 Sep
default		27 Sep
depmod.d		27 Sep
dhcp		Tue
DIR_COLORS	5.1 kB	6 Aug
DIR_COLORS.256color	5.7 kB	6 Aug
DIR_COLORS.lightbgcolor	4.7 kB	6 Aug
dleyna-server-service.conf	1.2 kB	10 Apr 2018
dnsmasq.conf	26.8 kB	16:21
dnsmasq.conf.1	89 bytes	Tue
dnsmasq.conf.02	26.8 kB	16:39
dnsmasq.conf.backup	26.8 kB	Tue
dnsmasq.d		18 Oct
dracut.conf	1.3 kB	8 Aug
dracut.conf.d		27 Sep
e2fsck.conf	112 bytes	6 Aug
egl		5 Sep
enscript.cfg	4.8 kB	8 Aug
environment	0 bytes	30 Oct 2018
ethertypes	1.3 kB	10 Apr 2018
exports	0 bytes	7 Jun 2013
exports.d		8 Aug

Home

Trash

CentOS 7 x86_64

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CentOS 7 x86_64

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CentOS ...

Other Locations

preuss   Documents

Name	Size	Modified
keysight_3_challenges_400GE.pdf	4.6 MB	1 Oct
keysight_acronyms_glossary.pdf	5.9 MB	1 Oct

[preuss@red-vm:/home/preuss]   dnsmasq.conf * SciTE   1/4

Player

Applications   Places   SciTE Text Editor

Thu Nov 7, 16:46

Home

Trash

CentOS 7 x86_64

(Untitled) - SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf   2 Untitled

li=1 co=1 INS (LF)

[preuss@red-vm:/home/preuss]   (Untitled) - SciTE   1 / 4

red_vm - VMware Workstation 15 Player (Non-commercial use only)

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Applications   Places   SciTE Text Editor

Thu Nov 7, 16:47

hosts * SciTE

File   Edit   Search   View   Tools   Options   Language   Buffers   Help

1 dnsmasq.conf   2 hosts *

134.29.228.101   brazil.mait01.example.org

Home

Trash

CentOS 7 x86_64

li=1 co=42 INS (LF)

[preuss@red-vm:/home/preuss]   hosts * SciTE   1 / 4

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf  /etc/dnsmasq.conf.02  /etc/dnsmasq.conf.1  /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]# cd Documents/
[root@red-vm Documents]# ls
dnsmasq.conf  hosts  keysight_3_challenges_400GE.pdf  keysight_acronyms_glossary.pdf
[root@red-vm Documents]#
```

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf  /etc/dnsmasq.conf.02  /etc/dnsmasq.conf.1  /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]# cd Documents/
[root@red-vm Documents]# ls
dnsmasq.conf  hosts  keysight_3_challenges_400GE.pdf  keysight_acronyms_glossary.pdf
[root@red-vm Documents]# cp dnsmasq.conf /etc/dnsmasq.conf
```

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf   /etc/dnsmasq.conf.02   /etc/dnsmasq.conf.1   /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]# cd Documents/
[root@red-vm Documents]# ls
dnsmasq.conf   hosts   keysight_3_challenges_400GE.pdf   keysight_acronyms_glossary.pdf
[root@red-vm Documents]# cp dnsmasq.conf /etc/dnsmasq.conf
cp: overwrite '/etc/dnsmasq.conf'? y
[root@red-vm Documents]#
```

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf  /etc/dnsmasq.conf.02  /etc/dnsmasq.conf.1  /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]# cd Documents/
[root@red-vm Documents]# ls
dnsmasq.conf  hosts  keysight_3_challenges_400GE.pdf  keysight_acronyms_glossary.pdf
[root@red-vm Documents]# cp dnsmasq.conf /etc/dnsmasq.conf
cp: overwrite '/etc/dnsmasq.conf'? y
[root@red-vm Documents]# cp hosts /etc/hosts
```

File   Edit   View   Search   Terminal   Help

```
[root@red-vm preuss]# cp /etc/dnsmasq.conf /etc/dnsmasq.conf.02
[root@red-vm preuss]# ls /etc/dns*
/etc/dnsmasq.conf  /etc/dnsmasq.conf.02  /etc/dnsmasq.conf.1  /etc/dnsmasq.conf.backup

/etc/dnsmasq.d:
[root@red-vm preuss]# cd Documents/
[root@red-vm Documents]# ls
dnsmasq.conf  hosts  keysight_3_challenges_400GE.pdf  keysight_acronyms_glossary.pdf
[root@red-vm Documents]# cp dnsmasq.conf /etc/dnsmasq.conf
cp: overwrite '/etc/dnsmasq.conf'? y
[root@red-vm Documents]# cp hosts /etc/hosts
cp: overwrite '/etc/hosts'? y
[root@red-vm Documents]#
```

Player

Applications   Places   Terminal

Thu Nov 7, 16:49

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

```
[root@red-vm Documents]# /sbin/ip a sh
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:ab:d8:f9 brd ff:ff:ff:ff:ff:ff
    inet 192.168.74.136/24 brd 192.168.74.255 scope global dynamic ens33
       valid_lft 1068sec preferred_lft 1068sec
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
[root@red-vm Documents]#
```

Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

Player

Applications   Places   Terminal

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preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

```
[root@red-vm Documents]# /sbin/ip a sh
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:ab:d8:f9 brd ff:ff:ff:ff:ff:ff
    inet 192.168.74.136/24 brd 192.168.74.255 scope global dynamic ens33
       valid_lft 1068sec preferred_lft 1068sec
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
[root@red-vm Documents]# nano /etc/resolv.conf
```

Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

Player

Applications Places Terminal

Thu Nov 7, 16:49

preuss@red-vm:/home/preuss/Documents

File Edit View Search Terminal Help

```
[root@red-vm Documents]# /sbin/ip a sh
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:ab:d8:f9 brd ff:ff:ff:ff:ff:ff
    inet 192.168.74.136/24 brd 192.168.74.255 scope global dynamic ens33
       valid_lft 1068sec preferred_lft 1068sec
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
[root@red-vm Documents]# nano /etc/resolv.conf
```

Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

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File   Edit   View   Search   Terminal   Help

  GNU nano 2.3.1   File: /etc/resolv.conf

; generated by /usr/sbin/dhclient-script
search localdomain mait.minnesota.edu
nameserver 192.168.74.2

                                  [Read 3 lines]
^G Get Help   ^O WriteOut   ^R Read File   ^Y Prev Page   ^K Cut Text   ^C Cur Pos
^X Exit   ^J Justify   ^W Where Is   ^V Next Page   ^U UnCut Text   ^T To Spell

```
  GNU nano 2.3.1                    File: /etc/resolv.conf                  Modified

; generated by /usr/sbin/dhclient-script
search localdomain mait.minnesota.edu
nameserver 192.168.74.136█




^G Get Help    ^O WriteOut    ^R Read File   ^Y Prev Page   ^K Cut Text    ^C Cur Pos
^X Exit        ^J Justify     ^W Where Is    ^V Next Page   ^U UnCut Text  ^T To Spell
```

Player

Applications   Places   Terminal

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Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Documents
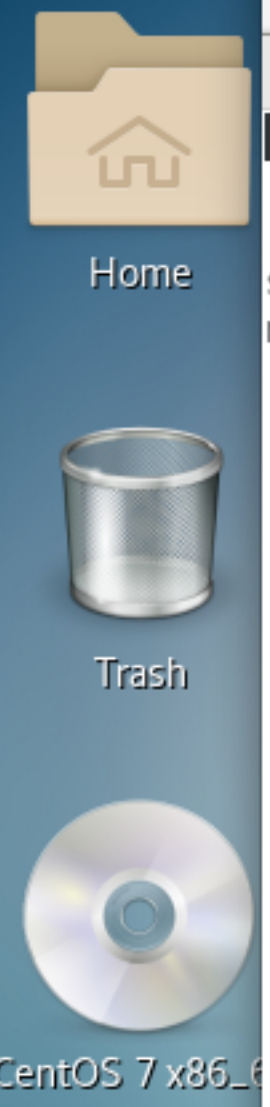
File   Edit   View   Search   Terminal   Help

```
  GNU nano 2.3.1                File: /etc/resolv.conf                 Modified

; generated by /usr/sbin/dhclient-script
search localdomain mait.minnesota.edu
nameserver 192.168.74.136
```

```
File Name to Write: /etc/resolv.conf
^G Get Help      M-D DOS Format      M-A Append         M-B Backup File
^C Cancel        M-M Mac Format      M-P Prepend
```

Player

Applications   Places   Terminal

Thu Nov 7, 16:50

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

GNU nano 2.3.1   File: /etc/resolv.conf

; generated by /usr/sbin/dhclient-script
search localdomain mait.minnesota.edu
nameserver 192.168.74.136

[Wrote 3 lines]

^G Get Help   ^O WriteOut   ^R Read File   ^Y Prev Page   ^K Cut Text   ^C Cur Pos
^X Exit   ^J Justify   ^W Where Is   ^V Next Page   ^U UnCut Text   ^T To Spell

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]   1 / 4

Player

Applications   Places   Terminal

Thu Nov 7, 16:50

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

```
[root@red-vm Documents]# /sbin/ip a sh
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 00:0c:29:ab:d8:f9 brd ff:ff:ff:ff:ff:ff
    inet 192.168.74.136/24 brd 192.168.74.255 scope global dynamic ens33
       valid_lft 1068sec preferred_lft 1068sec
3: virbr0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
    inet 192.168.122.1/24 brd 192.168.122.255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST,MULTICAST> mtu 1500 qdisc pfifo_fast master virbr0 state DOWN group default qlen 1000
    link/ether 52:54:00:08:98:bd brd ff:ff:ff:ff:ff:ff
[root@red-vm Documents]# nano /etc/resolv.conf
[root@red-vm Documents]# cat /etc/resolv.conf
; generated by /usr/sbin/dhclient-script
search localdomain mait.minnesota.edu
nameserver 192.168.74.136
[root@red-vm Documents]#
```

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

Applications   Places   Terminal

Thu Nov 7, 16:51

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

[root@red-vm Documents]# systemctl restart dnsmasq

Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

Player ▼

Applications   Places   Terminal

Thu Nov 7, 16:51

Home

Trash

CentOS 7 x86_6

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

```
[root@red-vm Documents]# systemctl restart dnsmasq
[root@red-vm Documents]# systemctl status dnsmasq
● dnsmasq.service - DNS caching server.
   Loaded: loaded (/usr/lib/systemd/system/dnsmasq.service; enabled; vendor preset: disabled)
   Active: active (running) since Thu 2019-11-07 16:51:19 CST; 9s ago
 Main PID: 6268 (dnsmasq)
    Tasks: 1
   CGroup: /system.slice/dnsmasq.service
           └─6268 /usr/sbin/dnsmasq -k

Nov 07 16:51:19 red-vm.mait.minnesota.edu systemd[1]: Stopped DNS caching server..
Nov 07 16:51:19 red-vm.mait.minnesota.edu systemd[1]: Started DNS caching server..
Nov 07 16:51:19 red-vm.mait.minnesota.edu dnsmasq[6268]: started, version 2.76 cachesize 150
Nov 07 16:51:19 red-vm.mait.minnesota.edu dnsmasq[6268]: compile time options: IPv6 GNU-getopt DBus no-i18n IDN DHCP DHCPv...otify
Nov 07 16:51:19 red-vm.mait.minnesota.edu dnsmasq[6268]: reading /etc/resolv.conf
Nov 07 16:51:19 red-vm.mait.minnesota.edu dnsmasq[6268]: ignoring nameserver 192.168.74.136 - local interface
Nov 07 16:51:19 red-vm.mait.minnesota.edu dnsmasq[6268]: read /etc/hosts - 1 addresses
Hint: Some lines were ellipsized, use -l to show in full.
[root@red-vm Documents]# 
```

preuss@red-vm:/home/preuss/Docu...   [hosts - SciTE]

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Player ▾

preuss@red-vm:/home/preuss/Documents

File   Edit   View   Search   Terminal   Help

```
[root@red-vm Documents]# dig brazil.mait01.example.org

; <<>> DiG 9.11.4-P2-RedHat-9.11.4-9.P2.el7 <<>> brazil.mait01.example.org
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 50454
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;brazil.mait01.example.org.     IN      A

;; ANSWER SECTION:
brazil.mait01.example.org. 0    IN      A       134.29.228.101

;; Query time: 0 msec
;; SERVER: 192.168.74.136#53(192.168.74.136)
;; WHEN: Thu Nov 07 16:51:52 CST 2019
;; MSG SIZE  rcvd: 70

[root@red-vm Documents]#
```