# How do I include lines in resolv.conf that won't get lost on reboot?

I have finally migrated to 12.04 from 7.10. I have one last part to complete but I am stumped. I am using Puppet on each server, and in the past I have included a nameserver address and a search domain name for the puppetmaster in resolv.conf.

```
search puppetmaster.com
nameserver 192.168.1.XXX
```

In 12.04 resolv.conf gets overwritten when rebooted. I cannot use a static IP for these, so using the /etc/network/interfaces to help me out is a nill point.

```
# 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
nameserver 127.0.0.1
```

Is there a way to get resolvconf to handle this either in the head, tail or base? If there is, are there any examples I can use to tweak on my server.

Any help is much appreciated.

resolv.conf

edited Apr 19 '13 at 14:35
jdthood
9,182 1 36 61

asked Jun 28 '12 at 13:54
Sam
651 2 6 3

## 16 Answers

It's probably better to have your DNS server be able to resolve 'puppet' to the right address, and either to have your DHCP server hand out the DNS nameserver address and search list or else (if you have static IP addresses) to have something like the following in /etc/network/interfaces.

```
iface eth0 inet static
    address 192.168.3.3
    netmask 255.255.255.0
    gateway 192.168.3.1
    dns-search example.com
    dns-nameservers 192.168.3.45 192.168.8.10
```

But if you do want to do it via the resolvconf configuration files you will want to edit `/etc/resolvconf/resolv.conf.d/base` . In that file, put in your info as you would in `resolv.conf` .

```
nameserver 192.168.1.XXX
```

Then tell resolvconf to regenerate `resolv.conf` .

```
sudo resolvconf -u
```

edited Apr 19 '13 at 14:41
jdthood
9,182 1 36 61

answered Jun 28 '12 at 15:35
tgm4883
6,249 2 21 33

13 Although this answer has votes, and the first part is more or less correct, the second part of the answer is incorrect. (1) Do *not* put a "search" line in /etc/resolvconf/resolv.conf.d/head. If you put a "search" line there, this line will be ignored if resolvconf includes a "search" line in the dynamic part of the resolv.conf file. The glibc resolver ignores all but the last "search" or "domain" line. See resolv.conf(5). (2) If the resolvconf configuration is changed you should not restart the resolvconf job but just run an update, "resolvconf -u". – jdthood Oct 27 '12 at 18:46

1 I've removed the line. The other option would be to use tail instead of head. – tgm4883 Oct 30 '12 at 11:44

1 base, head or tail (as of 12.04) are all being rewritten just like resolv.conf, so I can confirm that @jdthood comment is true. So, complete answer would say - do not edit any of resolv.conf files, and just run: sudo /etc/init.d/networking restart As a matter of fact, that will write interface changes to resolv.conf. – tishma Nov 1 '12 at 11:10

4 @tishma: Hi. First, to prevent any misunderstanding: nothing writes to the base, head or tail files. Nothing writes to any files in /etc/resolvconf/resolv.conf.d/ at run time. These files are read by resolvconf which assembles their content into the file that it writes --- /run/resolvconf/resolv.conf --- to which the symlink /etc/resolv.conf points. Second, concerning what to do after dns-* options in /etc/network/interfaces are changed. Do *not* run

"/etc/init.d/networking restart"; that is now deprecated. Instead ifdown the interface in question and ifup it again. – jdthood Nov 1 '12 at 13:18

3 In 14.04 this answer did nothing for me. – Jay Sullivan Jun 30 '14 at 0:55

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I think the answer is check your `/etc/dhcp/dhclient.conf` , i.e. don't request `dns-nameservers` from your **dhcp** client.

Then update your `/etc/network/interfaces`

```
auto eth0
iface eth0 inet dhcp
dns-search google.com
dns-nameservers dnsserverip
```

Then your `resolv.conf` will get auto configured the way you want it.

Add to the `dns-search` and then run a `/etc/init.d/networking restart` (even though this script's deprecated it still works).

edited May 4 at 20:30 — atc — 110 5

answered Nov 26 '12 at 1:58 — Jamin — 391 3 3

4 dhclient rules over any resolvconf settings so this should be the best answer. – Alex R Mar 4 '13 at 9:35

5 `/etc/init.d/networking restart` did not work on my machine, but `sudo ifdown -a` and then `sudo ifup -a` did. (Also, it took me a bit to realize I had to replace `dnsserverip` with something like `8.8.8.8` ; I feel a bit silly.) – Jason Gross Dec 9 '13 at 5:21

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This is likely caused by DHCP configuration when you first installed Ubuntu. Try this 3-step process to handle this auto configuration issue.

## First

Edit your interface configuration, which is located in: `/etc/network/interfaces`

Add this line below `iface lo inet loopback` :

```
dns-nameservers yourdns youraltdns
```

As an example for Google DNS, you may want to use this:

```
dns-nameservers 8.8.8.8 8.8.4.4
```

## Second

Edit your DHCP configuration file, located at:

```
/etc/dhcp/dhclient.conf
```

Mark the syntax as a comment using `#` on every line or simply remove every request name-server. In 16.04, you may not be required to make any changes here.

## Third

Restart your networking by using this command :

```
/etc/init.d/networking restart
```

In 16.04:

```
sudo ifdown -a
sudo ifup -a
```

edited May 1 at 0:26 — Christopher Kyle Horton — 9,692 12 65 131

answered Jun 20 '13 at 1:50 — astrajingga — 188 2 10

3 `/etc/init.d/networking restart` did not work on my machine, but `sudo ifdown -a` and then `sudo ifup -a` did. – Jason Gross Dec 9 '13 at 5:22

This is simple and it works even though it is a bit hacky! Problem with things like ubuntu is having 1000 ways to do one thing! – Willa O Ng'wana Jul 18 '16 at 12:52

And then you can check that */etc/resolv.conf* contains those 2 new DNS entries on the first useful lines. – ROMANIA_engineer Dec 20 '16 at 16:31

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Please look at `resolvconf` 's man page. You can force inclusion of certain DNS settings by creating e.g. `/etc/resolvconf/resolv.conf.d/base` :

```
/etc/resolvconf/resolv.conf.d/base
        File containing basic resolver information.  The lines  in  this
        file  are  included in the resolver configuration file even when
        no interfaces are configured.
```

There are other special files (head and tail), these may help you achieve what you want.

answered Sep 4 '12 at 14:26

roadmr
**24.1k** 3 58 73

4 You can add lines to /etc/resolvconf/resolv.conf.d/base, but because every nameserver is accessible via an interface and is accessible only when that interface is up, it is best to associate the nameserver information with that interface. If the interface is configured with ifup, this means: put the info on "dns-search" and "dns-nameservers" lines in /etc/network/interfaces stanzas. If the interface is configured via DHCP then this means: configure the DHCP server to supply search names and nameserver addresses to clients. Etc. Use the "base" file only as a temporary hack or as a last resort. – jdthood Oct 27 '12 at 18:56

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For me, the above answers were inadequate for the following reasons:

- I'm not using `resolvconf`, just plain `/etc/resolv.conf`.
- Using `chattr +i` to lock down `resolv.conf` seems too hacky. I need Puppet to be free to make changes when necessary.
- AFAIK, editing `/etc/network/interfaces` doesn't prevent `resolv.conf` from being overwritten; it simply specifies the name servers that should be written. For me, specifying the name servers wasn't the point. I'm trying to set `options timeout:1` and `options attempts:1` in my `resolv.conf` file.

The best solution I found overrides the default behavior of `dhclient` using its documented hooks.

Create a new file at `/etc/dhcp/dhclient-enter-hooks.d/nodnsupdate` with the following contents:

```
#!/bin/sh
make_resolv_conf() {
    :
}
```

Then make the file executable:

```
chmod +x /etc/dhcp/dhclient-enter-hooks.d/nodnsupdate
```

Now when dhclient runs -- either on reboot or when you manually run `sudo ifdown -a ; sudo ifup -a` -- it loads this script `nodnsupdate`. This script overrides an internal function called `make_resolv_conf()` that would normally overwrite `resolv.conf` and instead does nothing.

This worked for me on Ubuntu 12.04.

answered Mar 5 '15 at 22:12

richardkmiller
**141** 3

1 Works fine on Debian 8. Elegant solution! – Artur Bodera Oct 15 '15 at 7:19

1 just for completeness: manpage *dhclient-script* holds the information about the DHCP client network configuration script mentioned an the answer above. – hecke Feb 5 '16 at 19:36

This didn't work on 16.04, I added things to /etc/network/interfaces.d too, with no effect, added an empty override of make_resolv_conf recommended here, no effect.... but did not modify /etc/dhcp/dhclient.conf -- do I really need to modify a static config file to fix this? – silverjam Jan 30 at 20:57

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add your nameserver to file /etc/resolvconf/resolv.conf.d/head. The file contains message that you had received:

that file should looks like this after adding 8.8.8.8

```
root@hvnatvcc: ~ # cat /etc/resolvconf/resolv.conf.d/head
# 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
nameserver 8.8.8.8
```

answered Oct 23 '12 at 10:43

HVNSweeting
**210** 3 5

3 Adding lines to /etc/resolvconf/resolv.conf.d/head is a poor solution, even worse than adding lines to /etc/resolvconf/resolv.conf.d/base. The correct solution for interfaces configured using ifup is to add "dns-search" and "dns-nameservers" lines to stanzas in /etc/network/interfaces. See also my comments on the other answers. – jdthood Oct 27 '12 at 19:01

3 It's the only thing that actually worked for me... and it's seems hard to figure why none of the "correct" solutions are working. – silverjam Jan 30 at 20:54

This may just be some weird quirk in my machine, but someone else might have the same corner case.

I tried numerous ways to get my ISP nameservers included in /etc/resolv.conf with no success:

- I included them in `/etc/network/interfaces` and restarted networking. They didn't show up in `/etc/resolv.conf` .
- I put them in `/etc/resolv.conf` explicitly, but of course they got overwritten. They did show up in `/run/resolvconf/interface/eth0.inet` , but never made it to `/etc/resolv.conf` .
- I tried configuring resolvconf for dynamic updates. No change.

Finally I read somewhere that if the local machine (127.0.0.1) shows up in `/etc/resolv.conf` any other nameservers are not included.

In desperation I edited `/run/resolvconf/interface/lo.named` , deleted the only line in it ( `nameserver 127.0.0.1` ) and restarted: `ifdown eth0 && ifup eth0` .

/etc/resolv.conf then included my ISP nameservers for the first time! I ran `service network-manager restart` to see if it was stable and `/etc/resolv.conf` still includes my ISP nameservers. Rebooted just to make sure and it's still there *but* `/run/resolvconf/interface/lo.named` got reset to: `nameserver 127.0.0.1` .

Curiously restarting networking still works: `/etc/resolv.conf` still contains my ISP nameservers. I can't explain this (can someone?) but this might help someone stuck in the same spot.

edited Jun 26 '14 at 13:10
Oli ♦
197k 72 496 715

answered Jun 26 '14 at 5:18

user297954
21 1

This is probably caused by `dnsmasq` . You can simply remove it using `apt-get remove dnsmasq` or update config in `/etc/dnsmasq.conf` . – Tombart Jan 8 '16 at 22:44

The other solutions did not work for me on my Fedora 20 system. My particular problem was that the "search" line in /etc/resolv.conf was being overwritten. Here is what fixed it. (This assumes that NetworkManager is producing the line `search rn.yourcompany.com` and you want to have it be `search rn.yourcompany.com yourcompany.com intnet.yourcompany.com` :

1.Use the "ifconfig" command to find out what interface is of interest:

```
$ ifconfig
  :
  :

em2:  <this was the one which was connected>
```

2.Become root and change to the system configuration network devices directory:

```
$ sudo su -[sudo]
password for youruser:
# cd /etc/sysconfig/networking/devices`
```

1. Use your favorite available editor to add a `Domain` line with the additional domains to search:

```
DOMAIN="yourcompany.com intnet.yourcompany.com"
```

Save, logout, and log back in. NetworkManager should now have the line in `\etc\resolve.conf` :

```
search rn.yourcompany.com yourcompany.com intnet.yourcompany.com
```

answered Aug 29 '14 at 14:54
CBI
11 1

2 Not to rain on your parade, but this is Ask Ubuntu, and so Fedora is off-topic. – Flimm Dec 3 '14 at 0:05

As many other answers state this has to do with `resolvconf` being installed in your system.

So the best way to keep something in `resolv.conf` that won't get lost on reboot is to include it in resolvconf configuration files that are in:

```
/etc/resolvconf/resolv.conf.d/
```

In there go for the `head` file. Whatever you put there will be written at the top of `/etc/resolv.conf`

So everything will go to something like this:

```
# echo nameserver 8.8.8.8 >> /etc/resolvconf/resolv.conf.d/head
# resolvconf --enable-updates
# resolvconf -u
```

edited Mar 28 at 21:00

answered Oct 17 '16 at 13:59

Juan Javier Triff Cabanas

41 3

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add on the last line eg:

```
nameserver 8.8.8.8
```

Open up a terminal and type

```
sudo chattr +i /etc/resolv.conf
```

the +i takes care that the file wont be reseted on a boot.

To undo the above

```
sudo chattr -i /etc/resolv.conf
```

For more

```
man chattr
```

answered Feb 23 '13 at 17:42

tanmay.01

183 1 2 11

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If you are using DHCP, edit `/etc/dhcp/dhclient.conf` to add additional DNS servers:

```
prepend domain-name-servers 12.34.56.78, 12.34.56.79;
```

The DHCP client overwrites the `dns-nameservers` in `etc/network/interfaces` and I think in `/etc/resolvconf/resolv.conf.d/base` too.

This worked for me in Ubuntu server 14.04.3.

See the Debian NetworkConfiguration Wiki for details.

edited Oct 15 '15 at 17:09

answered Oct 14 '15 at 13:38

Kevin S. Miller

101 1

---

Add entries in `/etc/resolvconf/resolv.conf.d/head`

```
sudo echo "search puppetmaster.com" >> /etc/resolvconf/resolv.conf.d/head
sudo echo "nameserver 192.168.1.XXX" >> /etc/resolvconf/resolv.conf.d/head
```

and run following command

```
sudo resolvconf -u
```

edited May 17 '16 at 20:28

muru

106k 16 215 350

answered May 17 '16 at 13:22

siz

46 2

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I found this the simplest fix. If you have resolv.conf and resolvconf files they will step on one another. You need to remove the resolv.conf file that get an overwrite every time you do a reboot. Put the nameserver 8.8.8.8 8.8.4.4 at the bottom of the resolvconf file and then run the command `sudo rm /etc/resolv.conf` to get rid of the file. Then do a restart and everything will work.

answered Oct 19 '16 at 12:09

Irv

11 1

---

Just put a

```
dns-search google.com && dns-nameservers (sample: 8.8.8.8)
```

command on your `/etc/network/interfaces` configuration. then restart your network.

it should work.

edited Feb 6 '15 at 12:55
David Foerster
20.4k 11 44 79

answered Feb 6 '15 at 9:15
tesar
1

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That configuration is declared in `/etc/default/bind9`

```
RESOLVCONF=no|yes
```

**no** = don't apply the condition in the `init.d bind9`

**yes**, or other value = override `resolv.conf`

This problem accures when you install `bind9` and don't care about check all confs.

edited Apr 9 '13 at 10:12
BuZZ-dEE
7,917 11 47 67

answered Apr 9 '13 at 9:40
user147967
37 1

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**English translation:**

My solved. "only 12.4"

I noticed that if you add the dns-nameserver in interfaces that do not take the name resolution server Thanks to the help found here have solved the problem.

http://manpages.ubuntu.com/manpages/lucid/man8/resolvconf.8.html

To make resolv.conf not change when we edit manually do this in the terminal:

```
sudo resolvconf –disable-updates
```

after:

```
sudo resolvconf –a eth0 # or your network Interfas
```

then manually edit /run/resolvconf/resolv.conf

adding a maximum of two DNS servers. thanks P.S. not forget to restart:

```
sudo /etc/init.d/networking restart
```

**Original text:**

solo ubuntu 12.4

Mi solucion.

He visto que si agregas los dns-nameserver en interfaces esta no toma los server de resolucion de nombres

Gracias a la ayuda encontrada en esta pagina he resuelto el problema.

http://manpages.ubuntu.com/manpages/lucid/man8/resolvconf.8.html

Para hacer que resolv.conf no cambie cuando la editamos manualmente hacemos esto en la terminal:

```
sudo resolvconf –disable-updates
```

despues:

```
sudo resolvconf –a eth0 # o tu interfas de red
```

luego editamos manualmente /run/resolvconf/resolv.conf

agregando un maximo de 2 DNS servers. saludos P.D. no olvidar reiniciar:

```
sudo /etc/init.d/networking restart
```

edited Jul 26 '13 at 17:13
Kevin Bowen
12.5k 13 54 65

answered Sep 4 '12 at 14:16
enlinea777
13 2

3 This is very much *not* the right way to solve the problem. – jdthood Oct 27 '12 at 18:57

1 @jdthood as someone browsing this can you elaborate WHY this is not the right way? It seems logical to me, but I do not know anything about this. – ErikPerik Mar 25 '14 at 6:09

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