



Product: PM

Affected release: 2.3.X

Fix release: 2.4

Approx. downtime: 5 minutes

Severity: Critical

Category: Security

Release date: July 23, 2024

Feedback or suggestion?

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Technical Information Bulletin

Verify the Customer's DNS Servers Exist in `/etc/resolv.conf`

The Appliance deletes the customer's DNS servers

During an upgrade, the Virtual Appliance (Appliance) lists the customer's domain name system (DNS) servers in the `/etc/resolv.conf` file. In some situations, the Appliance deletes the contents of `resolv.conf`—including the DNS server list—after rebooting or after ten minutes. If `resolv.conf` does not list the DNS servers, pause the upgrade, and complete this TIB.

This TIB outlines the following:

1. Search for the customer's DNS servers in `resolv.conf`.
2. Add the DNS servers to `resolv.conf`.
 - a. Ensure the system-resolved service is inactive.
 - b. Delete and recreate `resolv.conf`.
 - c. Add the customer's DNS servers to `resolv.conf`.

Search for the customer's DNS servers in `resolv.conf`

1. SSH into the Appliance.
2. Enter the following:

```
cd /etc/resolv.conf  
cat /etc/resolv.conf
```

3. Look for the customer's DNS servers.

```
root@SHVA-4:~# netplan^C
root@SHVA-4:~# cd /etc/resolv.conf
-bash: cd: /etc/resolv.conf: Not a directory
root@SHVA-4:~# cat /etc/resolv.conf
# This is /run/systemd/resolve/resolv.conf managed by man:systemd-resolved(8).
# Do not edit.
#
# This file might be symlinked as /etc/resolv.conf. If you're looking at
# /etc/resolv.conf and seeing this text, you have followed the symlink.
#
# This is a dynamic resolv.conf file for connecting local clients directly to
# all known uplink DNS servers. This file lists all configured search domains.
#
# Third party programs should typically not access this file directly, but only
# through the symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a
# different way, replace this symlink by a static file or a different symlink.
#
# See man:systemd-resolved.service(8) for details about the supported modes of
# operation for /etc/resolv.conf.
nameserver 172.24.80.1
nameserver 172.24.209.129
search .
root@SHVA-4:~#
```

4. Enter the following:

systemctl status dnsmasq

If the customer's DNS servers match the ones that you searched for in the previous step, you can proceed with the upgrade.

```
# through the symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a
# different way, replace this symlink by a static file or a different symlink.
#
# See man:systemd-resolved.service(8) for details about the supported modes of
# operation for /etc/resolv.conf.
nameserver 172.24.80.1
nameserver 172.24.209.129
search .
root@SHVA-4:~# systemctl status dnsmasq
● dnsmasq.service - dnsmasq - A lightweight DHCP and caching DNS server
   Loaded: loaded (/lib/systemd/system/dnsmasq.service; enabled; vendor preset: enabled)
   Active: active (running) since 2024-04-03 20:25:19 UTC; 1min 10s ago
     Docs: man:dnsmasq.8(8)
           https://www.thekelleys.org.uk/dnsmasq-project.html
   Main PID: 2907871 (dnsmasq)
   CGroup: /systemd/system/dnsmasq.service
           └─ 2907871 dnsmasq

Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: compile time options: IPv6 GNU-getopt DBus no-UBus i18n IDN2 DHCP DHCPv6 no-
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 127.0.0.1#8600 for domain consul
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 127.0.0.1#8600 for domain service.consul
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: reading /etc/resolv.conf
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 127.0.0.1#8600 for domain consul
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 127.0.0.1#8600 for domain service.consul
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 172.24.80.1#53
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 172.24.209.129#53
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: read /etc/hosts - 2 names
Apr 03 20:25:19 SHVA-4 systemd[1]: Started dnsmasq - A lightweight DHCP and caching DNS server.
lines 1-23/23 (END)
```

Add the DNS servers

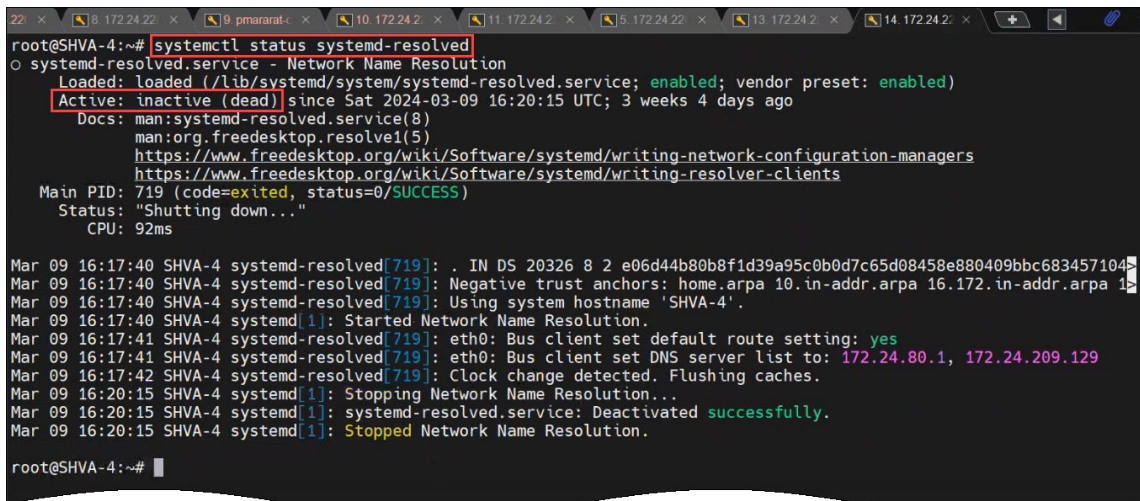
If the DNS servers did not display, complete the following steps to add them to the `resolv.conf` file.

Ensure the system-resolved service is inactive

1. Enter the following:

```
systemctl status systemd-resolved
```

Ensure that `systemd-resolved` is inactive.



```
root@SHVA-4:~# systemctl status systemd-resolved
○ systemd-resolved.service - Network Name Resolution
   Loaded: loaded (/lib/systemd/system/systemd-resolved.service; enabled; vendor preset: enabled)
   Active: inactive (dead) since Sat 2024-03-09 16:20:15 UTC; 3 weeks 4 days ago
     Docs: man:systemd-resolved.service(8)
           man:org.freedesktop.resolve1(5)
           https://www.freedesktop.org/wiki/Software/systemd/writing-network-configuration-managers
           https://www.freedesktop.org/wiki/Software/systemd/writing-resolver-clients
   Main PID: 719 (code=exited, status=0/SUCCESS)
     Status: "Shutting down..."
        CPU: 92ms

Mar 09 16:17:40 SHVA-4 systemd-resolved[719]: . IN DS 20326 8 2 e06d44b80b8fd39a95c0b0d7c65d08458e880409bbc683457104
Mar 09 16:17:40 SHVA-4 systemd-resolved[719]: Negative trust anchors: home.arpa 10.in-addr.arpa 16.172.in-addr.arpa 1v
Mar 09 16:17:40 SHVA-4 systemd-resolved[719]: Using system hostname 'SHVA-4'.
Mar 09 16:17:40 SHVA-4 systemd[1]: Started Network Name Resolution.
Mar 09 16:17:41 SHVA-4 systemd-resolved[719]: eth0: Bus client set default route setting: yes
Mar 09 16:17:41 SHVA-4 systemd-resolved[719]: eth0: Bus client set DNS server list to: 172.24.80.1, 172.24.209.129
Mar 09 16:17:42 SHVA-4 systemd-resolved[719]: Clock change detected. Flushing caches.
Mar 09 16:20:15 SHVA-4 systemd[1]: Stopping Network Name Resolution...
Mar 09 16:20:15 SHVA-4 systemd[1]: systemd-resolved.service: Deactivated successfully.
Mar 09 16:20:15 SHVA-4 systemd[1]: Stopped Network Name Resolution.

root@SHVA-4:~#
```

2. If `systemd-resolved` is active, enter the following:

```
systemctl stop systemd-resolved
systemctl disable systemd-resolved
```

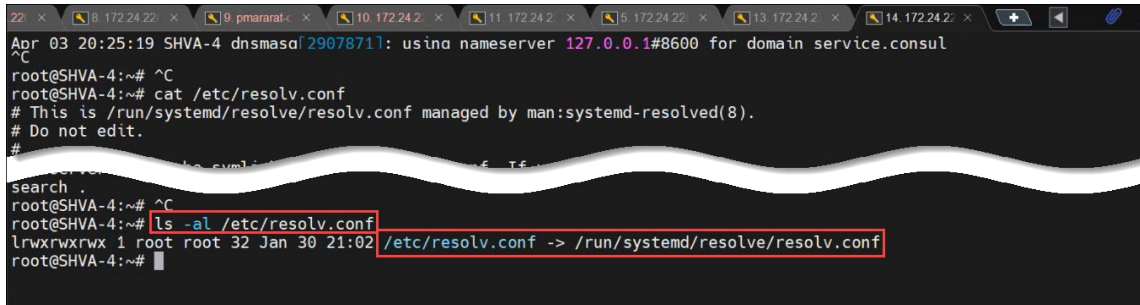
3. Repeat step 1 to ensure that `systemd-resolved` is inactive.

Delete and recreate resolv.conf

1. Enter the following:

```
ls -al etc/resolv.conf
```

This displays the symlink between **etc/resolv.conf** and its destination file, **run/systemd/resolve/resolv.conf**, if it exists. If the symlink does not exist, proceed to step 3.



```
Apr 03 20:25:19 SHVA-4 dnsmasq[2907871]: using nameserver 127.0.0.1#8600 for domain service.consul
root@SHVA-4:~# ^C
root@SHVA-4:~# cat /etc/resolv.conf
# This is /run/systemd/resolve/resolv.conf managed by man:systemd-resolved(8).
# Do not edit.
#
# To see the current links run:
#   ls -lrld /etc/resolv.conf
# To see the current contents run:
#   cat /run/systemd/resolve/resolv.conf
search .
root@SHVA-4:~# ^C
root@SHVA-4:~# ls -al /etc/resolv.conf
lrwxrwxrwx 1 root root 32 Jan 30 21:02 /etc/resolv.conf -> /run/systemd/resolve/resolv.conf
root@SHVA-4:~#
```

2. Unlink the symlink by entering the following:

```
unlink etc/resolv.conf
```

This deletes **resolv.conf**.

3. Recreate **resolv.conf** by entering the following:

```
vi etc/resolv.conf
```

Add the customer's DNS servers to resolv.conf

1. Add and save the customer's DNS servers to **resolv.conf** by entering the following:

```
<nameserver>: <IP address>
```

```
<nameserver>: <IP address>
```

2. Press **ESC**, then press **Shift + :**

3. Enter the following:

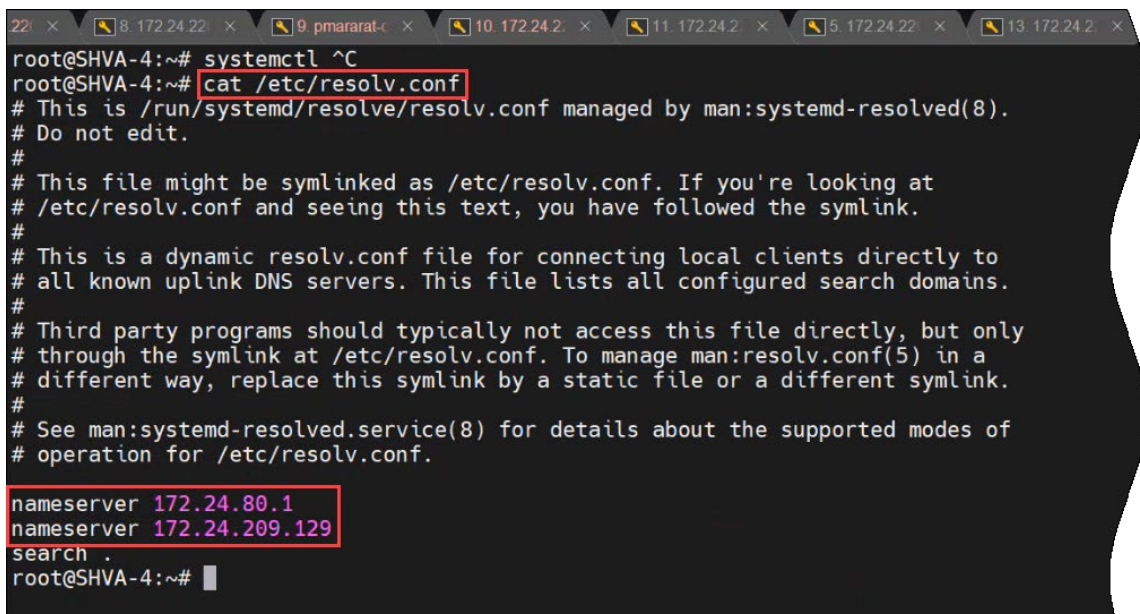
wq!



```
nameserver 172.24.80.1
nameserver 172.24.209.129
~
~
~
~
:wq!
```

4. Enter the following to verify **resolv.conf** saved the DNS servers:

cat /etc/resolv.conf



```
root@SHVA-4:~# systemctl ^C
root@SHVA-4:~# cat /etc/resolv.conf
# This is /run/systemd/resolve/resolv.conf managed by man:systemd-resolved(8).
# Do not edit.
#
# This file might be symlinked as /etc/resolv.conf. If you're looking at
# /etc/resolv.conf and seeing this text, you have followed the symlink.
#
# This is a dynamic resolv.conf file for connecting local clients directly to
# all known uplink DNS servers. This file lists all configured search domains.
#
# Third party programs should typically not access this file directly, but only
# through the symlink at /etc/resolv.conf. To manage man:resolv.conf(5) in a
# different way, replace this symlink by a static file or a different symlink.
#
# See man:systemd-resolved.service(8) for details about the supported modes of
# operation for /etc/resolv.conf.
nameserver 172.24.80.1
nameserver 172.24.209.129
search .
root@SHVA-4:~#
```

5. Enter the following to restart the **dnsmasq** service:

systemctl restart dnsmasq

