

Varnish setup

Step 1: Install Varnish

```
sudo apt update
sudo apt install varnish
```

```
root@5375:/usr/lib/apt/methods# sudo apt install varnish
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  cpp cpp-5 gcc gcc-5 libasan2 libatomic1 libc-dev-bin libc6-dev libcc1
  libtsan0 libubsan0 libvarnishapi1 linux-libc-dev manpages-dev
Suggested packages:
```

Start varnish for the first time and check its status afterward

```
service varnish start
```

```
service varnish status
```

```
root@5375:/# service varnish start
root@5375:/# service varnish status
• varnish.service - Varnish HTTP accelerator
  Loaded: loaded (/lib/systemd/system/varnish.service; enabled; vendor preset: enabled)
  Active: active (running) since Sun 2021-03-07 11:10:26 EST; 49min ago
    Docs: https://www.varnish-cache.org/docs/4.1/
          man:varnishd
  Main PID: 25522 (varnishd)
    CGroup: /system.slice/varnish.service
            └─25522 /usr/sbin/varnishd -j unix,user=vcache -F -a :6081 -T localhost:6082 -
              └─25636 /usr/sbin/varnishd -j unix,user=vcache -F -a :6081 -T localhost:6082 -
```

Check varnish version

```
root@5375:/# varnishd -V
```

```
varnishd (varnish-4.1.1 revision 66bb824)
```

```
Copyright (c) 2006 Verdens Gang AS
```

```
Copyright (c) 2006-2015 Varnish Software AS
```

Step 2: Configure webserver for Varnish

Nginx

Change nginx to listen on port 8080

We will change Nginx to listen on port 8080 so that Varnish can use the default port 80.

Go to **etc/nginx/sites-available/yourdomain.com** and look for these lines:

```
server {  
  
    server_name magento2.com;  
  
    listen 80;  
  
    set $MAGE_ROOT /var/www/magento2;  
  
    include /var/www/magento2/nginx.conf.sample;  
  
}
```

Change it to

```
server {  
  
    server_name magento2.com;  
  
    listen 8080;  
  
    set $MAGE_ROOT /var/www/magento2r;  
  
    include /var/www/magento/nginx.conf.sample;  
  
}
```

Restart Nginx to apply change

```
sudo service nginx restart
```

Varnish

Set Varnish to listen on port 80

Go to **/etc/default/varnish** and look for these lines.

```
DAEMON_OPTS="-a :80 \  
  
-T localhost:6082 \  
  
-f /etc/varnish/default.vcl \  
  
-S /etc/varnish/secret \  
  
-s malloc,256m"
```

```
sudo systemctl daemon-reload
```

```
sudo nano
```

```
/etc/systemd/system/multi-user.target.wants/varnish.service
```

Now edit text with nano and change port **6081** to port **80**

```
GNU nano 2.5.3 File: /etc/systemd/system/multi-user.target.wants/varnish.service
[Unit]
Description=Varnish HTTP accelerator
Documentation=https://www.varnish-cache.org/docs/4.1/ man:varnishd

[Service]
Type=simple
LimitNOFILE=131072
LimitMEMLOCK=82000
ExecStart=/usr/sbin/varnishd -j unix,user=vcache -F -a :6081 -T localhost:6082 -f /etc/varnish/default.vcl -S /etc/varnish/secret -s malloc,256m
ExecReload=/usr/share/varnish/reload-vcl
ProtectSystem=full
ProtectHome=true
PrivateTmp=true
PrivateDevices=true

[Install]
WantedBy=multi-user.target
```

Now restart varnish and test if listen ports are set correctly

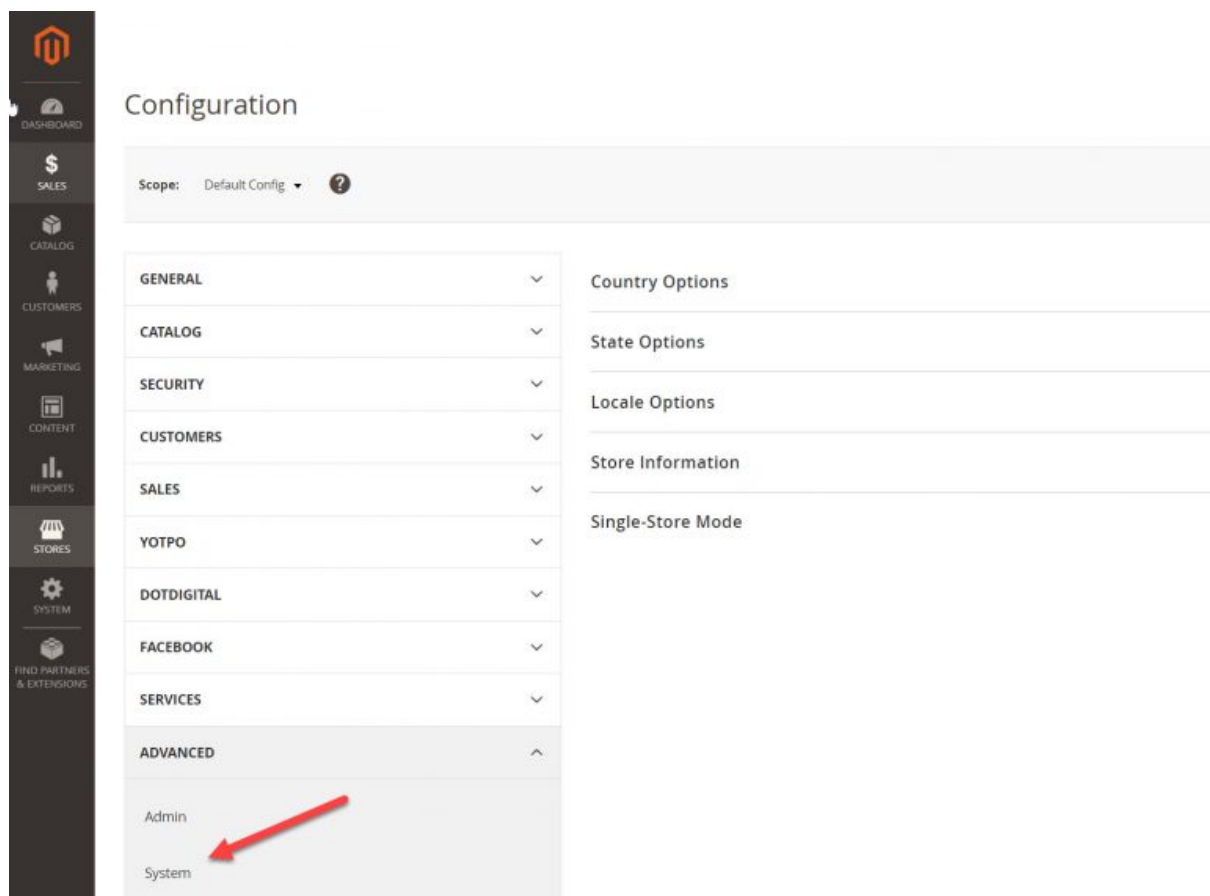
```
sudo service varnish restart
```

```
sudo netstat -tulpn
```

```
root@5375:/# sudo netstat -tulpn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:6082          0.0.0.0:*                LISTEN      31755/varnishd
tcp        0      0 127.0.0.1:3306          0.0.0.0:*                LISTEN      5194/mysqld
tcp        0      0 0.0.0.0:111             0.0.0.0:*                LISTEN      205/rpcbind
tcp        0      0 0.0.0.0:80              0.0.0.0:*                LISTEN      31755/varnishd
tcp        0      0 0.0.0.0:8080            0.0.0.0:*                LISTEN      31486/apache2
tcp        0      0 0.0.0.0:22              0.0.0.0:*                LISTEN      15351/sshd
tcp        0      0 0.0.0.0:25              0.0.0.0:*                LISTEN      454/master
tcp6       0      0 :::6082                 :::*                    LISTEN      31755/varnishd
tcp6       0      0 :::111                  :::*                    LISTEN      205/rpcbind
tcp6       0      0 :::80                   :::*                    LISTEN      31755/varnishd
tcp6       0      0 :::22                   :::*                    LISTEN      15351/sshd
tcp6       0      0 :::25                   :::*                    LISTEN      454/master
```

Step 3: Configure Magento 2 to work with Varnish

In Magento 2 admin dashboard, go to **Store > Setting > Configuration > Advanced > System**



Next, deselect use system value and choose Varnish as Caching application

Backup Settings

Full Page Cache

Caching Application [global] Varnish Cache (Recommended) ☐ Use system value

TTL for public content [global] 86400 ☐ Use system value

Public content cache lifetime in seconds. If field is empty default value 86400 will be saved.

Varnish Configuration

Access list [global] localhost

IPs access list separated with ',' that can purge Varnish configuration for config file generation. If field is empty default value localhost will be saved.

Backend host [global] localhost

Specify backend host for config file generation. If field is empty default value localhost will be saved.

Backend port [global] 8080

Specify backend port for config file generation. If field is empty default value 8080 will be saved.

Grace period [global] 300

Specify grace period in seconds for config file generation. If field is empty default value 300 will be saved.

Step 4: Check if Varnish is working properly

Open the website

inspect>refresh page>network>magento2.com

The screenshot shows a web browser window with the URL `magento2.com`. The page displays the "Home Page" of the LUMA theme. The browser's developer tools are open, showing the "Network" tab. The list of resources includes `magento2.com`, `calendar.css`, `styles-m.css`, `styles-l.css`, `require.js`, `mixins.js`, `requirejs-config.js`, `polyfills`, `opensans-300.woff2`, `opensans-400.woff2`, `opensans-600.woff2`, `opensans-700.woff2`, `luma-icons.woff2`, `logo.svg`, `print.css`, `jquery.js`, `jquery.mobile.custom.js`, `common.js`, `dataPost.js`, and `bootstrap.js`. The selected resource is `magento2.com`, and the "Headers" tab is active, showing the following information:

```

Content-Type: text/html; charset=UTF-8
Date: Wed, 08 Jun 2022 04:47:07 GMT
Expires: -1
Pragma: no-cache
Transfer-Encoding: chunked
Varnish-Handling: hit
  
```