# **Installing NGINX**

#### **Installing a Prebuilt CentOS/RHEL Package from an OS Repository**

1. Install the EPEL repository:  
   $ sudo yum install epel-release
2. Update the repository:  
   $ sudo yum update
3. Install NGINX Open Source:  
   $ sudo yum install nginx
4. Verify the installation:  
   $ sudo nginx -v

nginx version: nginx/1.6.3

#### **Installing a Prebuilt CentOS/RHEL Package from the Official NGINX Repository**

1. Set up the yum repository for RHEL or CentOS by creating the file **nginx.repo** in **/etc/yum.repos.d**, for example using vi:  
   $ sudo vi /etc/yum.repos.d/nginx.repo
2. Add the following lines to **nginx.repo**:  
   [nginx]

name=nginx repo

baseurl=https://nginx.org/packages/mainline/<OS>/<OSRELEASE>/$basearch/

gpgcheck=0

enabled=1

where:

* The /mainline element in the pathname points to the latest mainline version of NGINX Open Source; delete it to get the latest stable version
* <OS> is either rhel or centos
* <OSRELEASE> is the release number (6, 6.\_x\_, 7, 7.\_x\_ and so on)  
  For example, to get the latest mainline package for CentOS 7, insert:

[nginx]

name=nginx repo

baseurl=https://nginx.org/packages/mainline/centos/7/$basearch/

gpgcheck=0

enabled=1

1. Save the changes and quit vi (press ESC and type wq at the : prompt).
2. Update the repository:  
   $ sudo yum update
3. Install the NGINX Open Source package:  
   $ sudo yum install nginx
4. Start NGINX Open Source:  
   $ sudo nginx
5. Verify that NGINX Open Source is up and running:  
   $ curl -I 127.0.0.1

HTTP/1.1 200 OK

Server: nginx/1.13.8

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## **Compiling and Installing from Source**

Compiling NGINX Open Source from source affords more flexibility than prebuilt packages: you can add particular modules (from NGINX or third parties), and apply latest security patches.

### **Installing NGINX Dependencies**

Prior to compiling NGINX Open Source from source, you need to install libraries for its dependencies:

[PCRE](http://pcre.org/) – Supports regular expressions. Required by the NGINX [Core](https://nginx.org/en/docs/ngx_core_module.html) and [Rewrite](https://nginx.org/en/docs/http/ngx_http_rewrite_module.html) modules.  
$ wget ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/pcre-8.44.tar.gz

$ tar -zxf pcre-8.44.tar.gz

$ cd pcre-8.44

$ ./configure

$ make

$ sudo make install

[zlib](http://www.zlib.net/) – Supports header compression. Required by the NGINX [Gzip](https://nginx.org/en/docs/http/ngx_http_gzip_module.html) module.  
$ wget http://zlib.net/zlib-1.2.11.tar.gz

$ tar -zxf zlib-1.2.11.tar.gz

$ cd zlib-1.2.11

$ ./configure

$ make

$ sudo make install

[OpenSSL](https://www.openssl.org/) – Supports the HTTPS protocol. Required by the NGINX [SSL](https://nginx.org/en/docs/http/ngx_http_ssl_module.html) module and others.  
$ wget http://www.openssl.org/source/openssl-1.1.1g.tar.gz

$ tar -zxf openssl-1.1.1g.tar.gz

$ cd openssl-1.1.1g

$ ./Configure darwin64-x86\_64-cc --prefix=/usr

$ make

$ sudo make install

### **Downloading the Sources**

Download the source files for both the stable and mainline versions from [**nginx.org**](http://www.nginx.org/en/download.html).

To download and unpack the source for the latest *mainline* version, run:

$ wget https://nginx.org/download/nginx-1.19.0.tar.gz

$ tar zxf nginx-1.19.0.tar.gz

$ cd nginx-1.19.0

To download and unpack source files for the latest *stable* version, run:

$ wget https://nginx.org/download/nginx-1.18.0.tar.gz

$ tar zxf nginx-1.18.0.tar.gz

$ cd nginx-1.18.0

### **Configuring the Build Options**

Configure options are specified with the ./configure script that sets up various NGINX parameters, including paths to source and configuration files, compiler options, connection processing methods, and the list of modules. The script finishes by creating the Makefile required to compile the code and install NGINX Open Source.

An example of options to the configure script (should be typed as a single line):

$ ./configure

--sbin-path=/usr/local/nginx/nginx

--conf-path=/usr/local/nginx/nginx.conf

--pid-path=/usr/local/nginx/nginx.pid

--with-pcre=../pcre-8.44

--with-zlib=../zlib-1.2.11

--with-http\_ssl\_module

--with-stream

--with-mail=dynamic

--add-module=/usr/build/nginx-rtmp-module

--add-dynamic-module=/usr/build/3party\_module