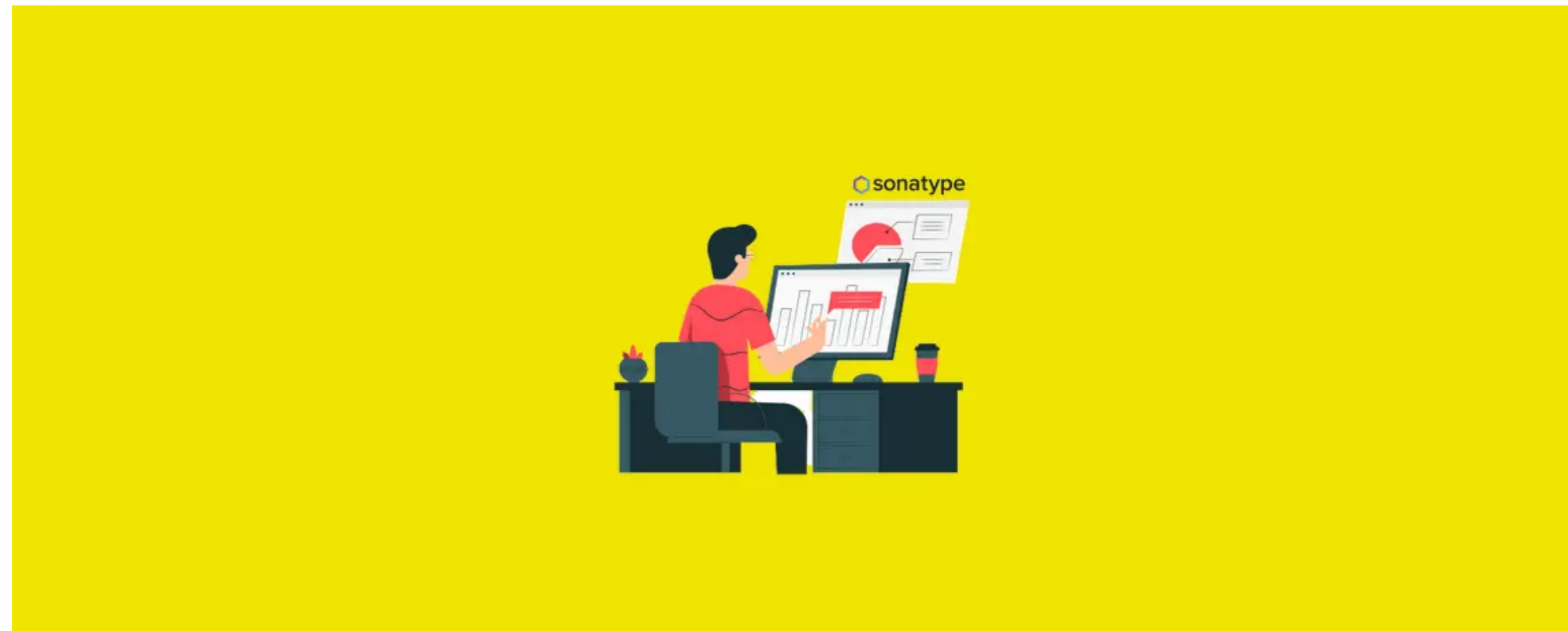


# How To Install Latest Sonatype Nexus 3 on Linux

by **devopscube** · April 25, 2021



Sonatype Nexus is one of the best open-source artifact management tools. It is some tool that you cannot avoid in your [CI/CD pipeline](#). It effectively manages deployable artifacts.

## Sonatype Nexus System Requirements

- 1 Minimum 1 VCPU & 2 GB Memory
- 2 Server firewall opened for port 22 & 8081
- 3 OpenJDK 8
- 4 All Nexus processes should run as a non-root nexus user.

**Note:** For production setup, please consider minimum production hardware requirements based on the nexus usage and data storage. Check out the [official system requirements document](#) for detailed information.

# Sonatype Nexus 3 on Linux ec2

This article guides you to install and configure Sonatype Nexus 3 in a secure way on an ec2 Linux System.

**Note:** This was tested on a Redhat machine and it will work on Centos or related Linux flavors as well.

**Step 1:** Login to your Linux server and update the yum packages. Also install required utilities.

```
sudo yum update -y
sudo yum install wget -y
```

**Step 2:** Install OpenJDK 1.8

```
sudo yum install java-1.8.0-openjdk.x86_64 -y
```

**Step 3:** Create a directory named app and cd into the directory.

```
sudo mkdir /app && cd /app
```

**Step 4:** Download the latest nexus. You can get the latest download links fo for nexus [from here](#).

```
sudo wget -O nexus.tar.gz https://download.sonatype.com/nexus/3/latest-unix.tar.gz
```

Untar the downloaded file.

```
sudo tar -xvf nexus.tar.gz
```

Rename the untared file to nexus.

```
sudo mv nexus-3* nexus
```

**Step 5:** As a good security practice, it is not advised to run nexus service with root privileges. So create a new user named `nexus` to run the nexus service.

```
sudo adduser nexus
```



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Change the ownership of nexus files and nexus data directory to nexus user.

```
sudo chown -R nexus:nexus /app/nexus
sudo chown -R nexus:nexus /app/sonatype-work
```

**Step 6:** Open `/app/nexus/bin/nexus.rc` file

```
sudo vi /app/nexus/bin/nexus.rc
```

Uncomment `run_as_user` parameter and set it as following.

```
run_as_user="nexus"
```

**Step 7:** If you want to change the default nexus data directory, open the nexus properties file and change the data directory `-Dkaraf.data` parameter to a preferred location as shown below. If you don't specify anything, by default nexus data directory will be set to `/app/sonatype-work/nexus3`

**Tip:** For production setup, it is is always better to mount the nexus data directory to a separate data disk attached to the server. So that backup and restore can be done easily.

```
sudo vi /app/nexus/bin/nexus.vmoptions
```

An example configuration is shown below.

```
-Xms2703m
-Xmx2703m
-XX:MaxDirectMemorySize=2703m
-XX:+UnlockDiagnosticVMOptions
-XX:+UnsyncloadClass
-XX:+LogVMOutput
-XX:LogFile=./sonatype-work/nexus3/log/jvm.log
-XX:-OmitStackTraceInFastThrow
-Djava.net.preferIPv4Stack=true
-Dkaraf.home=.
-Dkaraf.base=.
-Dkaraf.etc=etc/karaf
-Djava.util.logging.config.file=etc/karaf/java.util.logging.properties
-Dkaraf.data=/nexus/nexus-data
-Djava.io.tmpdir=./sonatype-work/nexus3/tmp
-Dkaraf.startLocalConsole=false
```

It is better to have `systemd` entry to manage nexus using `systemctl` . Follow the steps given below for adding nexus as a `systemd` service.

Create a nexus systemd unit file.

```
sudo vi /etc/systemd/system/nexus.service
```

Add the following contents to the unit file.

```
[Unit]
Description=nexus service
After=network.target

[Service]
Type=forking
LimitNOFILE=65536
User=nexus
Group=nexus
ExecStart=/app/nexus/bin/nexus start
ExecStop=/app/nexus/bin/nexus stop
User=nexus
Restart=on-abort

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

## Manage Nexus Service

Now we have all the configurations in place to run nexus.

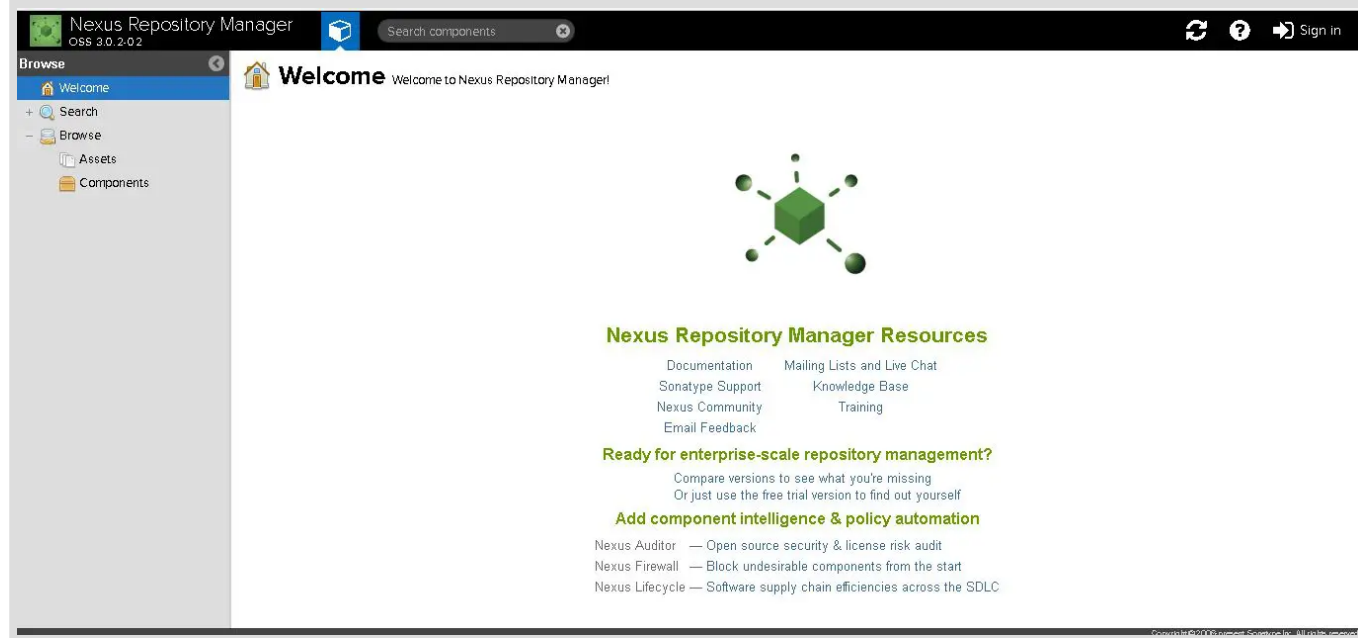
Execute the following command to add nexus service to boot.

```
sudo chkconfig nexus on
```

To start the Nexus service, use the following command. If you are having trouble starting nexus, please check the troubleshooting section below.

```
sudo systemctl start nexus
```

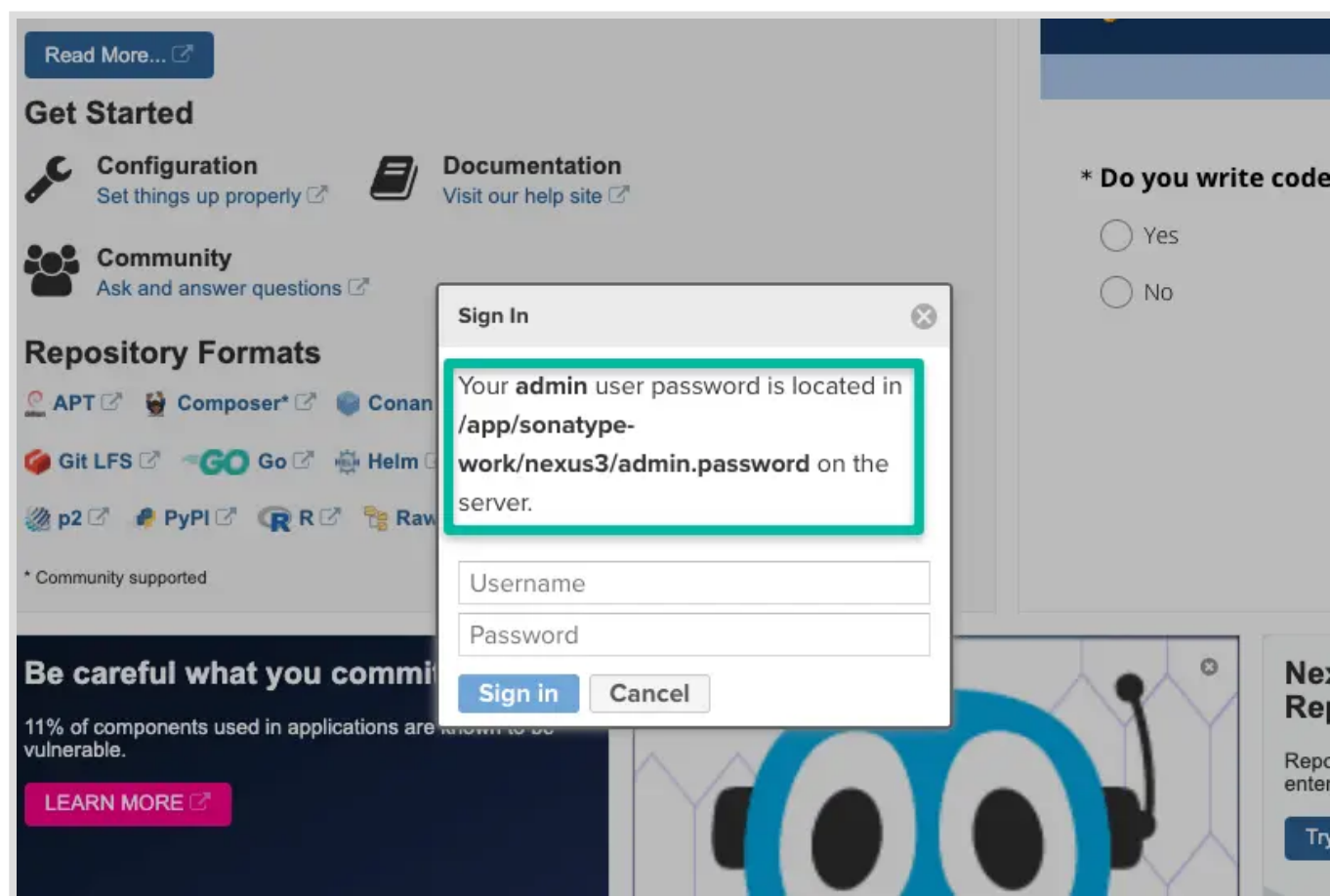
The above command will start the nexus service on port `8081` . To access the nexus dashboard, visit `http://:8081`. You will be able to see the nexus homepage as shown below.



To log in, use the default username and password.

Default username is `admin`

You can find the default admin password in `/app/sonatype-work/nexus3/admin.password` file. The path will be shown in the login screen as show below.



```
cat /app/sonatype-work/nexus3/admin.password
```

Once you login, you will be prompted to reset the password.

For stopping nexus, execute

```
sudo systemctl stop nexus
```

For restarting nexus,

# Sonatype Nexus not Starting

## [Troubleshooting]

Sometimes, if the server is enabled with SELINUX, you might get the following error.  
(Commonly on Centos Servers)

```
Job for nexus.service failed because the control process exited with error code.  
See "systemctl status nexus.service" and "journalctl -xe" for details.
```

Execute the following command and see the actual error.

```
journalctl -xe
```

Check the output for the following SELINUX issue.

```
SELinux is preventing /usr/lib/systemd/systemd from execute access on the file  
nexus.
```

To rectify this issue, add a SELinux policy to allow Systemd to access the nexus binary in path `/app/nexus/bin/nexus` using the following command.

```
sudo chcon -R -t bin_t /app/nexus/bin/nexus
```

Now, start the Nexus server again.

```
sudo systemctl start nexus
```

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by [devopscube](#) · April 25, 2021

## How to check the Nexus version in Linux?

You can find the Nexus version from the Dashboard. Also, if you want to find the

```
curl --include --silent http://localhost:8081/ | grep Server
```

7  
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## How to start Nexus in Linux?

Nexus binary comes as an executable. You can use the binary path to start nexus. For background execution, you can create a systemd file with nexus configurations.

**TAGS:** Artifact Management

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