



Installing Avi Vantage for Local Development Using Docker on Mac

Avi Technical Reference (v17.2)

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Local Avi Vantage development can be performed on an Apple Mac by loading the Avi executables into Docker containers.

Prerequisites

- Mac hardware must be 2010 or newer
- MacOS 10.10.3 Yosemite or newer
- At least 10 GB of spare RAM capacity
- VirtualBox prior to version 4.3.30 must "NOT" be installed.
- The following local TCP ports should not be in use: 9443, 9080, 8443, 5098, 8053, 8054, 161.
- Avi Mini Version: 17.1 Build 5040 or later

Step 1: Download and Install Docker on Mac

```
https://docs.docker.com/docker-for-mac/
```

Click "Get Docker for Mac [stable] to download the Docker.dmg installation package. Double-click `Docker.dmg` Drag and drop the Docker icon into the Applications folder.

Step 2: Start Docker on Mac

Open Finder->Application Double-click the Docker icon. Once Docker is running on the Status bar, run `docker version` to verify the installed version with output akin to the below. > Note: When starting Docker, allocate at least 5 CPU and 12 GB RAM to the Docker daemon.

```
Docker for Mac
Version: 1.12.5 (14777)
macbookpro15:~ $ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

macbookpro15:~ $ docker version
Client:
Version: 1.12.5
API version: 1.24
Go version: go1.6.4
Git commit: 7392c3b
Built: Fri Dec 16 06:14:34 2016
OS/Arch: darwin/amd64
Server:
Version: 1.12.5
API version: 1.24
Go version: go1.6.4
Git commit: 7392c3b
Built: Fri Dec 16 06:14:34 2016
```

```
OS/Arch: linux/amd64
macbookpro15:~ $
```

Step 3: Download the Avi Vantage on Mac package

Download `docker_install.tar.gz` from <https://www.avinetworks.com/portal/>

Step 4: Move install package to installation directory

Verify your Mac IP address using an `ifconfig -a` command. Search for and verify your IP address appears.

scp `docker_install.tar.gz` to your Mac at `/tmp` directory

Step 5: Untar and Unzip the install package

```
tar zxvf docker_install-16.7.1.buildnumber.tar.gz
```

Step 6: Run the installation script

From the `/tmp` directory:

```
macbookpro15:avi $ ./avi_macOS_setup.py -i ip.ipaddr.your.mac
```

Verify `docker ps` yields an output akin to the below.

```
macbookpro15:avi $ docker ps
CONTAINER ID   IMAGE                                COMMAND                                CREATED        STATUS
5612f8246172   avinetworks/se:17.1-5040-20170109.125818  "/opt/avi/scripts/doc"               About a minute ago   Up About
d08488db9dae   avinetworks/controller:17.1-5040-20170109.125818  "/opt/avi/scripts/doc"               About a minute ago   Up About
```

Step 7: Initialize the Avi Controller for the first time

Avi Controller GUI will be listening on HTTPS/9443 port. Initialize Avi Controller via the browser by connecting to `https://ip.ipaddr.your.mac:9443`

Step8: Additional steps to enable unauthenticated SE-to-Controller communication:

Allow SE-to-Controller communication as follows:

```
macbookpro15:avi $ docker exec -it avicontroller bash
/# shell
```

```
Login: admin
Password:
[admin:192-168-38-160]: > configure controller properties
[admin:192-168-38-160]: controllerproperties> allow_unauthenticated_nodes
Overwriting the previously entered value for allow_unauthenticated_nodes
[admin:192-168-38-160]: controllerproperties> save
```

Step:9 Verify your setup

Verify SE communication with OPER_UP

```
show serviceengine
+-----+-----+-----+-----+-----+
| Name          | SE Group   | Mgmt IP   | Cloud      | Oper Stat |
+-----+-----+-----+-----+-----+
| 172.17.0.3    | Default-Group | 172.17.0.3 | Default-Cloud | OPER_UP   |
+-----+-----+-----+-----+-----+
[admin:192-168-38-160]: >
```