1/17/2026 • 2 min read

debugging x86_64 on mac silicon(m series)

lima

the most straightforward and easiest way is to install a x86_64 linux vm with lima.

INSTALL LIMA

```
brew install lima qemu
```

- start an x86_64 lima vm with qemu

```
limactl start --arch=x86_64 --vm-type=qemu
```

you access the vm with `lima`

now you can use `gdb` for example to debug x86_64 binaries on the vm.

running a kali vm with lima

i tried the normal kali iso and the kali vm image from kali.org, but neither worked.

my workaround is to setup a debian vm and install kali tools on it.

- create a `kali.yaml` file with the following content:

KALI.YAML

```
vmType: "qemu"
os: "Linux"
arch: "x86_64"
# use debian cloud image as base (more reliable)
```

```
images:
  - location: "https://cloud.debian.org/images/cloud/bookworm/lates
    arch: "x86_64"
cpus: 4
memory: "4GiB"
disk: "60GiB"
firmware:
  legacyBIOS: false
mounts:
  - location: "~"
    writable: true
ssh:
  localPort: 0
  loadDotSSHPubKeys: true
containerd:
  system: false
  user: false
provision:
  - mode: system
    script: |
      #!/bin/bash
      set -eux -o pipefail

      export DEBIAN_FRONTEND=noninteractive
      apt update
      apt upgrade -y

      apt install -y gnupg2 apt-transport-https

      echo "deb http://http.kali.org/kali kali-rolling main contrib

      wget -q -O - https://archive.kali.org/archive-key.asc | gpg -
      apt update

      apt install -y kali-linux-core

```

access the vm with `limactl shell kali`

if you want you can install

- no gui tools `apt install kali-linux-headless`

- deafult tools `apt install kali-linux-default`
- all of the tools `apt install kali-linux-everything`
- or a category `apt install kali-tools-reverse-engineering`

gdb debug mac