Linux has been ported to run on Apple’s M1 Macs

A new Linux port allows Apple’s M1 Macs to run Ubuntu for the first time. Corellium, a security firm that offers a virtualized version of iOS for security testing, has successfully ported Ubuntu over to M1 Macs and released a tutorial for others to follow. The modified version of Ubuntu boots into the regular user interface and includes USB support.

The team at Corellium have detailed exactly how they managed to get Ubuntu running, and it’s a good in-depth read if you’re interested in the details. While a number of M1 components are shared with Apple’s mobile chips, the non-standard chips made it challenging to create Linux drivers to get Ubuntu running properly.

Apple hasn’t designed its M1 Macs with dual-boot or Boot Camp in mind. Craig Federighi, Apple’s senior vice president of software engineering, has previously ruled out official support for natively booting alternate operating systems like Windows or Linux. Virtualization seems to be Apple’s preferred method, but that hasn’t stopped people from making their own ports.

> *Linux is now completely usable on the Mac mini M1. Booting from USB a full Ubuntu desktop (rpi). Network works via a USB c dongle. Update includes support for USB, I2C, DART. We will push changes to our GitHub and a tutorial later today. Thanks to the @CorelliumHQ team □□ pic.twitter.com/uBDbDmvJUG*
>
> *— Chris Wade (@cmwdotme) January 20, 2021*

Hector Martin, a developer who regularly gets Linux running on a variety of hardware, is also porting Linux to M1 Macs. Developers seem to be enticed by the performance benefits offered by Apple's M1 chips, and the ability to run Linux on a silent ARM-based machine. "I've been waiting for an ARM laptop that can run Linux for a *long* time," said Linux creator Linus Torvalds back in November. "The new Air would be almost perfect, except for the OS."

Corellium CTO Chris Wade describes this new port as "completely usable" on a Mac Mini M1, and it works by booting the full Ubuntu desktop from USB. You will need a USB-C dongle to get networking working, though, and the process to get the port running will require some familiarity with Linux and custom kernels. Corellium has posted a tutorial on the process, if you're interested in trying this beta project out.

Corellium has some experience in working around Apple's operating system protections. Corellium offers security researchers a virtual iPhone to help with vulnerability exploration. It's a process that has angered Apple enough to file lawsuits against Corellium. Apple lost an early challenge against Corellium late last year, after initially filing a lawsuit against the company on copyright grounds back in August 2019. Apple later alleged DMCA violations in January 2020, and a judge dismissed the copyright infringement claims in December. A ruling on the separate DMCA allegations has been deferred.

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