

# **Fling on Ampere Ultra-based Servers**

Arm

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# 1 Info

The Ampere Computing™ Altra provides industry leading power efficiency/core for cloud workloads.

The Altra is based on the Arm Neoverse N1 microarchitecture, supports up to 80 cores/socket (Altra) or 128 cores/socket (Altra Max), up to 4TB RAM/socket and 128 lanes of PCIe Gen4/socket. See the official Altra info at <https://amperecomputing.com/altra/>, including purchasing options.

**Note: At this time, the support for dual-socket Altra systems is experimental.** Be prepared for possible performance anomalies and stick to low-core count VMs for now.

Here are some Altra-based choices:

- [Systems available from multiple retailers](#)<sup>1</sup> (official Ampere link to distributors)
- [Avantek Ampere Altra Mt. Snow 2U Server](#)<sup>2</sup> (online store link)
- [Avantek Ampere Altra Workstation](#)<sup>3</sup> (online store link)

All of these have connectivity options expected from a server, such as a BMC, RS-232 serial console, USB, PCIe, NVMe, etc.

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<sup>1</sup> <https://solutions.amperecomputing.com/systems/altra>

<sup>2</sup> <https://store.avantek.co.uk/ampere-altra-server-2u-mt-snow.html>

<sup>3</sup> <https://store.avantek.co.uk/ampere-altra-64bit-arm-workstation.html>

## 2 Required and supported hardware

Minimally, you need:

- An Ampere Altra-based system
- 1 x USB drive for installer ISO
- 1 x USB, or NVMe drive for actual ESXi installation
- 1 x USB or PCIe NIC

The following hardware is supported:

- USB and NVMe storage
- USB and PCIe networking
- VGA video and USB keyboards
- Serial console

## 3 Preparation

This document does not cover server unpacking, assembly or configuration as UEFI firmware updates. Please use official documentation.

Note that with a server, there are usually more than one way to do things.

For example, for console access:

- VGA + USB keyboard
- BMC web interface for VGA + USB keyboard
- BMC serial port redirection via IPMI

Or for booting:

- ESXi installer on USB key
- ISO via virtual media redirection

## 4 Install ESXi-Arm

- Get a working console (via IPMI, BMC KVM, VGA, etc)
- Power on system
- When prompted, choose to boot from USB drive
- Follow the generic installation steps.