

# Oracle Linux for Arm

Oracle Linux 9, 8, and 7 are available on the 64-bit Arm platform (aarch64). Oracle Linux for Arm features the Unbreakable Enterprise Kernel (UEK), Oracle's optimized Linux kernel built for business-critical performance and security optimizations for cloud and on-premises deployments. Oracle Linux for Arm is built from the same source packages as the corresponding Oracle Linux distribution for the x86\_64 architecture, plus any patches and modifications that are required to support the Arm platform.

## Build next generation applications

Arm processors are ubiquitous—already powering billions of smartphones and edge devices, they're increasingly used in PCs, laptops, and servers.

With highly optimized performance, better performance to power ratios, and reduced total cost of ownership, Arm processors are now driving the growth of on-premises data centers and clouds.

Oracle Linux for Arm is an optimized and secure operating environment that delivers virtualization, management, and a solid developer toolset to build next generation Arm-based applications.

## Free and easy access

Oracle Linux for Arm can be downloaded, used and distributed free of charge, with easy access to installation ISOs and [ready to run images](#). An ISO image can be used for a standard installation on generic 64-bit Arm hardware. This ISO has been tested on Arm 64-bit hardware and is engineered for use with Ampere Altra and AltraMax based platforms.

You can download an Oracle Linux for Arm installation media image from the [Oracle Linux yum server](#) or the [Oracle Software Delivery Cloud](#). You can also obtain the latest Oracle Linux packages from the [Unbreakable Linux Network \(ULN\)](#) or the [Oracle Linux yum server](#).

The process of installing Oracle Linux on the Arm platform does not differ substantially from the installation process of an x86 platform. Review the [Oracle Linux Documentation](#) for instructions.

To find out about hardware qualified on Oracle Linux for Arm, refer to the [Hardware Certification List](#).

## Fast and easy deployment in Oracle Cloud

For [Oracle Cloud Infrastructure \(OCI\)](#) users, Oracle Linux for Arm images are easily accessible and can be deployed on Ampere Altra Arm-based compute services directly from the OCI console. Oracle Linux images available in OCI

### Key features

- Free to use, distribute, and update
- Oracle's optimized Linux kernel, the Unbreakable Enterprise Kernel (UEK) for Oracle Linux
- Zero-downtime patching of kernel and key user space libraries with Oracle Ksplice
- Automated updating and patching with Oracle OS Management Service
- Comprehensive kernel and application tracing with DTrace
- Includes a solid developer toolset to build code for 64-bit Arm platforms
- Rapidly deploy a cloud development environment with the Oracle Linux Cloud Developer image

### Key benefits

- Access a modern Linux kernel and development environment to build a next generation Arm-based solution
- Flexible support options including free support for Oracle Cloud Infrastructure subscribers

### Related products

Additional software available for Oracle Linux for Arm on the Oracle Linux yum server includes:

- MySQL Community Server
- OpenJDK

### Resources

- [Oracle.com/linux](#)
- [Oracle Linux Support](#)
- [Oracle Cloud Infrastructure](#)
- [OS Management Service](#)

are frequently updated to help ensure access to the latest software. These images also include pre-installed [OCI utilities](#) to simplify and accelerate the deployment and configuration of Oracle Linux for Arm instances on OCI.

The Oracle Linux yum server is mirrored inside OCI regions to enable faster downloads for Oracle software and the latest Oracle Linux bug fixes and security errata. Because all network traffic stays within the Oracle Cloud data centers, no Internet traffic bandwidth is consumed, and no network charges are incurred.

## Zero-downtime patching with Ksplice

[Oracle Ksplice](#) technology can be used to apply zero-downtime security updates for the kernel and key user space libraries such as glibc and openssl, without requiring a reboot or stopping applications. Ksplice on the Arm platform is available with current releases of the [Unbreakable Enterprise Kernel](#) (UEK) for Oracle Linux.

Ksplice is included with [Oracle Linux Premier Support](#) and freely available with OCI subscriptions.

## Manage updates with OS Management Service

[Oracle OS Management Service](#), available within OCI, provides tools to automate patch and package management for Oracle Linux instances in Oracle Cloud. Oracle Linux for Arm instances can be managed by OS Management Service to help keep track of security and OS updates available for deployment.

Time-consuming administrative tasks can be simplified using additional OS Management features, including a lookup tool for Common Vulnerabilities and Exposures (CVEs), automation of package and update installations, and streamlined fleet management.

OS Management Service is available at no additional charge with OCI subscriptions.

## Jump start Arm development on Oracle Cloud

The [Oracle Linux Cloud Developer image](#) provides software and tools that integrate with native OCI services, making it easy to deploy an Arm development environment within minutes. It is an Oracle Linux 8-based, ready-to-run image that provides an out-of-the-box development platform on OCI. It enables you to rapidly pre-install, automatically configure, and launch a comprehensive development environment that includes a choice of preferred development languages like [Java Platform Standard Edition](#) (Java SE) and [Oracle GraalVM Enterprise Edition](#) (EE), software development kits (SDKs), and OCI client tools. This image enables application developers to easily access the software and tools they need to transition existing applications and to build new ones on an Arm-based cloud platform.

Java SE subscriptions, which include Oracle GraalVM EE, are offered and supported at no additional cost for OCI deployments.

## Arm developer toolset

Oracle Linux for Arm includes a solid developer toolset, including the `gcc` compiler, to build code for 64-bit Arm platforms. Oracle Linux 9 and 8 present the concept of Application Streams, where multiple versions of user-space components can be delivered and updated more frequently than the core operating system packages. With Application Streams, developers can leverage recent versions of Python, PHP, NodeJS, nginx, and more, without risk of disrupting applications running on different versions of these components. Application Streams contain all the necessary system components along with other products and programs.

In addition, Extra Packages for Enterprise Linux (EPEL) packages, available in the [EPEL repository](#), are built and signed by Oracle for security and compliance.

## Real time troubleshooting with DTrace

[Oracle DTrace](#) is a comprehensive, advanced tracing tool for troubleshooting systematic problems in real time. It allows administrators, integrators, and developers to dynamically and safely observe live systems for performance issues in both applications and the operating system itself.

DTrace user space code in the `dtrace-utils` package has been ported to run on 64-bit Arm platforms to enable DTrace for Oracle Linux for Arm.

## Container Runtimes

Available for Oracle Linux 9 and 8 for Arm, [Podman](#) provides a lightweight utility to run and manage Open Container Initiative compatible containers. [Oracle Container Runtime for Docker](#) is available for Oracle Linux 7 for Arm. Podman and Oracle Container Runtime for Docker can be installed from the [Oracle Linux yum server](#). Container images for Oracle Linux for Arm can be pulled from the [Oracle Container Registry](#), [GitHub](#), and [Docker Hub](#).

## MySQL Community packages

The MySQL Community packages are available for the Arm platform and can be installed directly from the [Unbreakable Linux Network](#) (ULN) or the [Oracle Linux yum server](#) by enabling the appropriate channel or repository.

## Flexible support options

Oracle Linux for Arm is available with Premier, Basic, and self-support options. This means you can decide which support coverage is best for each of your systems. Oracle's worldwide, around-the-clock, cost-effective [Linux support](#) is offered in 145 countries for traditional, cloud-based, and virtual environments.

[Oracle Linux Premier Support](#) is available at no additional cost for Oracle Cloud Infrastructure subscribers.

## Technology preview for Raspberry Pi

Oracle also makes available a disk image of [Oracle Linux 9 and 8 for Arm](#) for use on Raspberry Pi 4 Model B and Raspberry Pi 3 Model B/B+ hardware. This disk image is available as a technology preview for developer use only. Oracle does not provide support for this disk image or the hardware. Developers can find mutual support through the [Oracle Linux for Arm community forum](#).

## Oracle Linux partner ecosystem

With an extensive ISV and IHV partner ecosystem, Oracle Linux and virtualization customers can improve time to market and simplify deployment. As partners qualify their software or hardware on Oracle Linux for Arm, the [Oracle Linux ISV Catalog](#) or [Hardware Certification List](#) will be updated accordingly.

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