

# PROJECT PHOTON OS

# A Linux Container-Optimized Operating System.

#### AT A GLANCE

- Lightweight Linux operating system
- Optimized for VMware vSphere
- · Security hardened
- · Strong lifecycle management
- Includes the Docker daemon
- Boosts performance for containers

#### **REQUIREMENTS**

Cloud-ready images of Photon OS are available for VMware vSphere $\mathbb{R}$ , VMware Workstation  $Pro^{\mathsf{TM}}$ , VMware Fusion $\mathbb{R}$ , Microsoft Azure, Google Compute Engine (GCE), and Amazon Elastic Compute Cloud (EC2).

- 2GB of RAM is recommended.
- The minimal version requires 512MB of free disk space.
- The full version on the ISO requires 8GB of free disk space for Fusion and Workstation and 16GB of free disk space for vSphere.

The ISO and OVA images for Photon OS are distributed under the VMware Photon OS™ EULA. Open source license information is in the Photon OS™ Open Source License. To read the EULA or the open source license, see the Photon OS GitHub site at https://vmware.github.io/photon/.

# What is Photon OS?

Project Photon OS™ is an open source Linux container host optimized for cloud-native applications, cloud platforms, and VMware infrastructure. Photon OS provides a secure runtime environment for running containers.

#### How Photon OS Works

By minimizing the number of packages, focusing on security, and providing advanced lifecycle management, Photon OS delivers just enough of a Linux operating system to efficiently run containers on VMware vSphere, Microsoft Azure, Google Compute Engine, and Amazon Elastic Compute Cloud.

#### Minimal and Full Versions

Photon OS comes in a minimal version and a full version. Each version contains only the elements necessary to fulfill its use case. The minimal version is a lightweight host tailored to running containers when performance is paramount. The full version of Photon OS includes additional packages to help develop, test, and deploy containerized applications.

### Key Photon OS Features

- Optimized kernel: The Linux kernel is tuned for performance when Photon OS runs on VMware ESXi™.
- Security-hardened Linux: The kernel is configured according to the recommendations of the Kernel Self-Protection Project (KSPP).
- Curated packages and repositories: Packages are built with hardened security flags.
- Secure EFI boot: The operating system boots with validated trust.
- Secure remote management: The Photon Management Daemon securely manages the firewall, network, packages, and users on remote Photon OS machines by using API calls over a command-line utility, Python, or REST.
- Support for persistent volumes: Photon OS supports persistent volumes to store the data of cloud-native apps on VMware vSAN $^{\text{TM}}$ .
- Project Lightwave<sup>™</sup> integration: This open source security platform from VMware authenticates and authorizes users with Active Directory or LDAP.
- Advanced lifecycle management: There are timely security patches and updates to container packages, such as Docker and Kubernetes.

#### Download Photon OS

Photon OS is available for download at https://vmware.github.io/photon/.

## Get Involved

Photon OS welcomes contributions from the open source community. To contribute code, sign the contributor license agreement (CLA) when you submit a GitHub pull request. See the CLA FAQ.

