Project Photon OS

A Linux Container-Optimized Operating System

What is Photon OS

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

How does Photon OS work?

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, Developer and Edge Versions

Photon 3.0 introduces three sizes and each version contains only the elements necessary to fulfill its use case:

- **Minimal:** for devices that have limited compute and memory capabilities
- **Developer:** includes packages to build, test and deploy containerized applications
- **Edge:** includes packages relevant to an edge gateway device

Support for Edge and IoT Environments

Photon OS is validated for running VMware Pulse IoT Center software and the Pulse Agent. The combination of Photon and Pulse IoT center supports the implementation of docker based containers at the edge so you can run modern cloud native apps such as data analytics and filtering close to the point of data origination in IoT devices. Running the Pulse Agent on Photon with edge devices can enhance the security of edge devices with certificate, DNS, and security token services.

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.

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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.*

- **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™.

- **Project Lightwave™ integration:** This open source security platform from VMware authenticates and authorizes users with Active Directory or LDAP.

REQUIREMENTS

- Cloud-ready images of Photon OS are available for VMware vSphere®, VMware Workstation Pro, VMware Fusion®, Microsoft Azure, Google Compute Engine (GCE), and Amazon Elastic Compute Cloud (EC2).

- Minimal: OS install consumes approximately 512 MB space. Recommended disk size = 2 GB or higher.

- Developer: OS install consumes approximately 1.2 GB space. Recommended disk size = 4 GB or higher.

- Edge: OS install consumes approximately 700 MB space. Recommended disk size = 2 GB or higher.

- RAM: 2GB minimum, or higher.

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