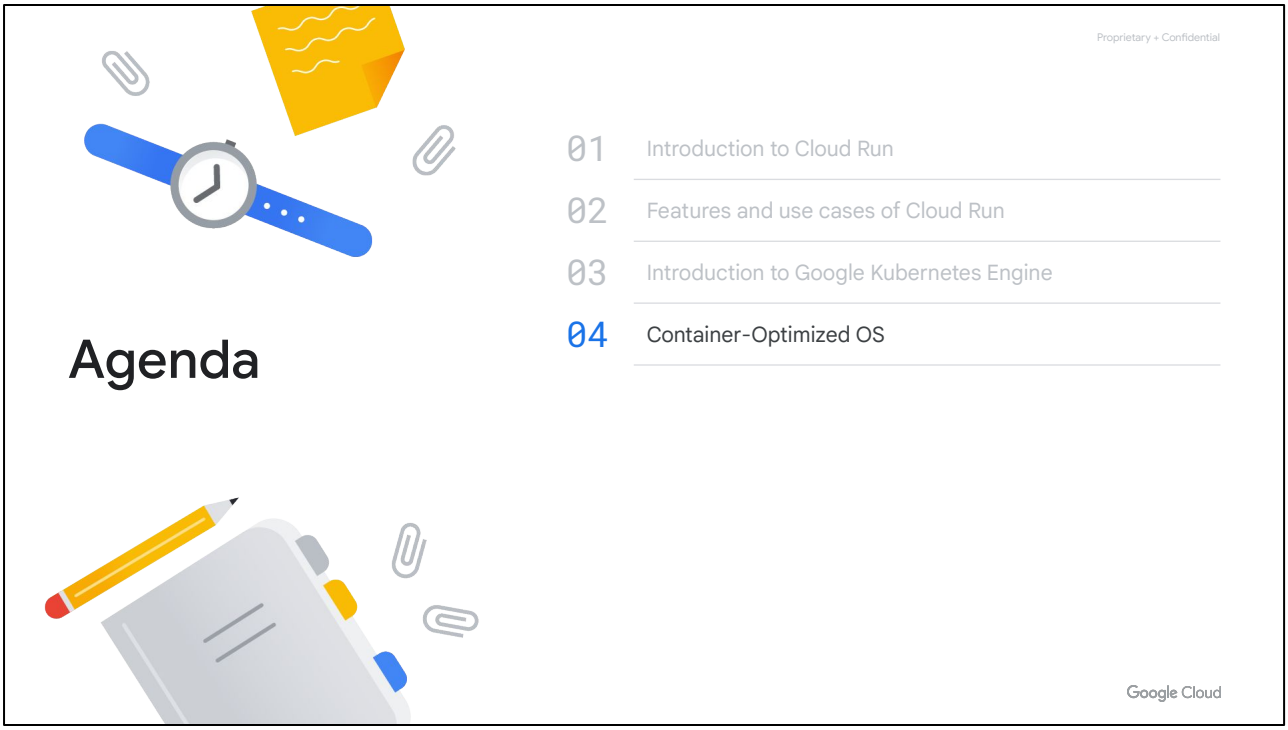


In this section, we briefly discuss Container-Optimized OS, which is another operating system for running containerized applications.

Container-Optimized OS

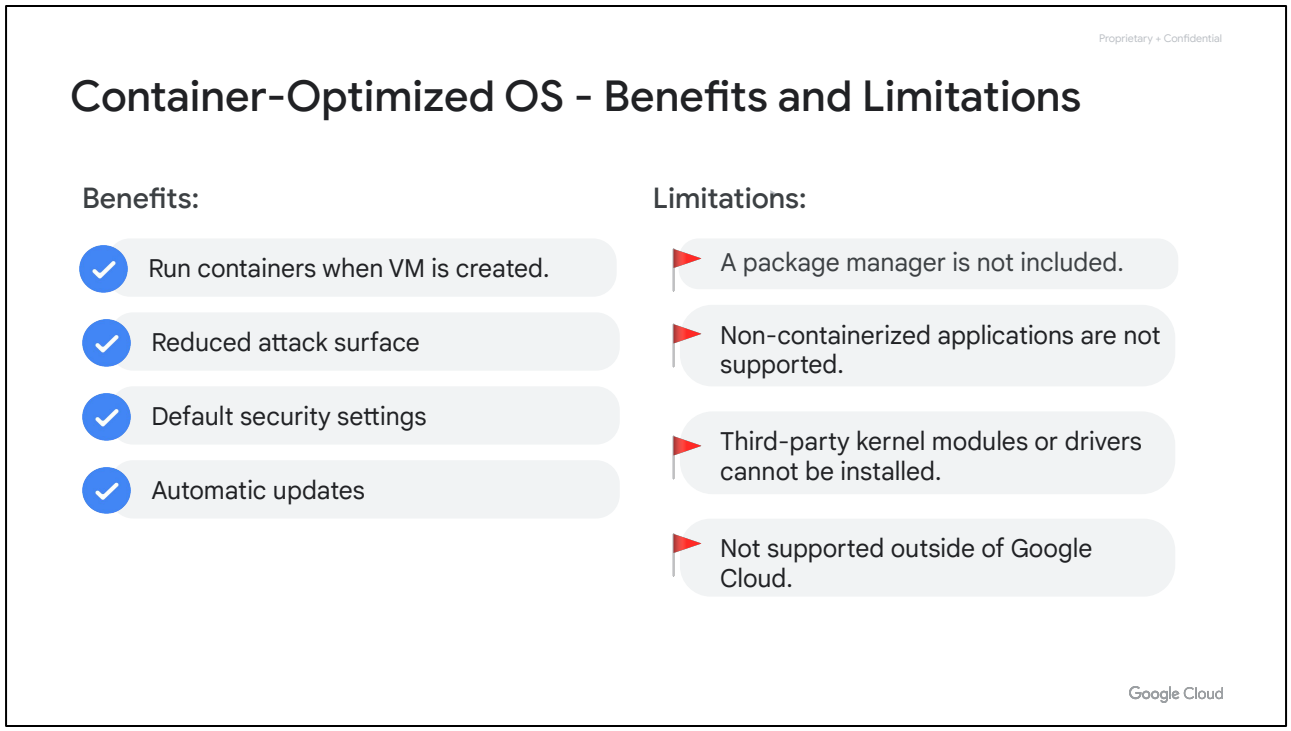
Container-Optimized OS is:

1. An operating system image for Compute Engine VMs to run containerized applications.
2. Optimized for running Docker containers.
3. Maintained by Google and based on the open source Chromium OS project.

In addition to Cloud Run and Google Kubernetes Engine, Google Cloud offers Container-Optimized OS, an operating system that you can use to run containerized applications.

Container-Optimized OS is an image for Compute Engine VMs that is optimized for running Docker containers.

Container-Optimized OS is maintained by Google and is based on the open source Chromium OS project. With Container-Optimized OS, you can start your Docker containers on Google Cloud quickly, and run them efficiently, and securely.



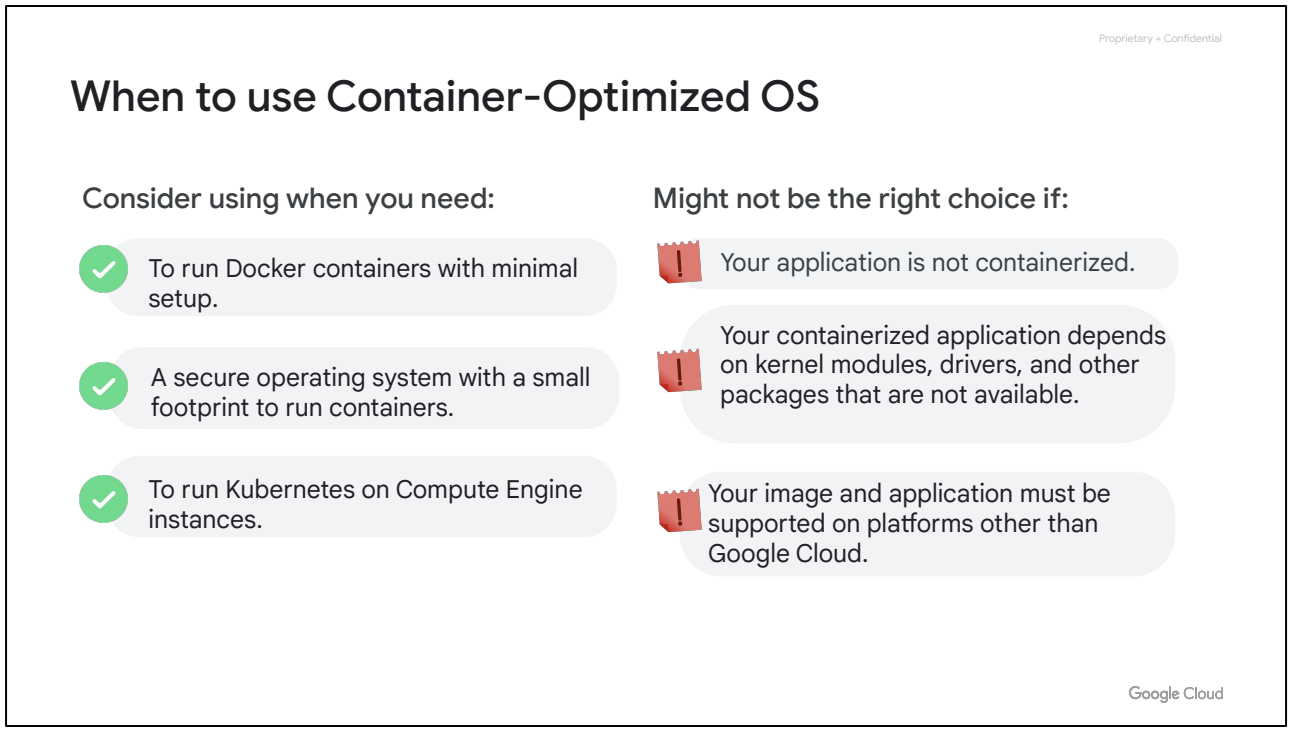
Here are some features and benefits of Container-Optimized OS:

- Run containers out of the box: Container-Optimized OS instances come pre-installed with the Docker runtime and cloud-init. With a Container-Optimized OS instance, you can bring up your Docker container at the same time you create your VM, with no on-host setup required.
- Smaller attack surface: Container-Optimized OS has a smaller footprint, reducing your instance's potential attack surface.
- Locked-down by default: Container-Optimized OS instances include a locked-down firewall and other security settings by default.
- Automatic Updates: Container-Optimized OS instances are configured to automatically download weekly updates in the background; only a reboot is necessary to use the latest updates.

There are also some limitations of Container-Optimized OS:

- A package manager is not included, so you'll be unable to install software packages directly on an instance. However, you can use CoreOS toolbox to install and run debugging and admin tools in an isolated container.
- Container-Optimized OS does not support execution of non-containerized applications.
- The Container-Optimized OS kernel is locked down, so you'll be unable to install third-party kernel modules or drivers.
- Container-Optimized OS is not supported outside of the Google Cloud

- environment.



You should consider using Container-Optimized OS as the operating system for your Compute Engine instance if:

- You need to run Docker containers with minimal setup.
- You need a secure operating system with a small footprint to run containers.
- You need to run Kubernetes on your Compute Engine instances.

Container-Optimized OS may not be the right choice if:

- Your application is not containerized, or your containerized application depends on kernel modules, drivers, and other additional packages that are not available in Container-Optimized OS.
- You want your image and application to be fully supported on platforms other than Google Cloud.

Compute Engine provides images for other popular operating systems, including images that are optimized for containers. To learn about other operating systems that you can use to run containerized applications on Google Cloud, view the documentation.