

A hypervisor, also known as a virtual machine monitor (VMM) or virtualizer, is a type of computer software, firmware or hardware that creates and runs virtual machines. A computer on which a hypervisor runs one or more virtual machines is called a host machine and each virtual machine is called a guest machine. The hypervisor presents the guest operating systems with a virtual operating platform and manages the execution of the guest operating systems. Unlike an emulator, the guest executes most instructions on the native hardware. Multiple instances of a variety of operating systems may share the virtualized hardware resources: for example, Linux, Windows and macOS instances can all run on a single physical x86 machine. This contrasts with operatingsystem level virtualization, where all instances (usually called containers) must share a single kernel, though the guest operating systems can differ in user space, such as different Linux distributions with the same kernel.