

ParaVirtualization

Paravirtualization

Paravirtualization is a technique where the hypervisor exposes a modified version of the physical hardware interface to the guest VM. The idea is that since emulation "wastes" a lot of computational time doing those translations, a paravirtualization setup will let the guest VM have special access to certain aspects of the physical hardware.

However, this efficiency does come at the cost of flexibility and security. Flexibility is lost because the operating system must be modified to run with the paravirtualization. Some security is lost as the guest OS has much closer control of the underlying hardware, slightly increasing the risk of impacting the lower hardware level, which could lead to impacting all guest systems on the host.

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