

LOCKING DOWN YOUR ENVIRONMENT WITH VIRTUALIZATION



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Virtualization has many upsides, including efficiency and budget. Along with those is the always necessary but rarely considered (until it's too late): security. Virtualization has several properties that make it ideal for a security-conscious system.

Isolation

Before the advent of virtualization, companies were limited in their network architecture by the amount of physical hardware they could buy. Because of the nature of virtualization, you can create as many instances as your server can handle. This allows you to have much greater isolation of responsibilities per instance than what could be attempted with physical hardware. By isolating responsibilities, any security breach that occurs won't get access to the entire system as it would with physical hardware.

Rollback

There are many systems out there built to back up your environment and allow for easy rollback, but nothing compares to how quickly you can rollback from security breaches with virtualization. Replace the instance with a previous instance, power it up, and you are back to a clean and secure environment before the vulnerability was introduced.

Abstraction

A security breach of non-virtualized servers opens direct access to the server it sits on. This may lead to even deeper breaches in the long run as the attacker uses the hardware to his/her advantage. Virtualization is software abstraction that sits on top of the hardware. This means that even though a security breach can occur to a particular instance, the instance only has limited access to the hardware, depending on its needs. Your hard drive is partitioned, not allowing access to the full set of data on the server. Some instances don't require internet access. These kinds of limitations reduce the opportunities a security breach can exploit.



FACT:

Just because you virtualize one or more aspects of your IT doesn't mean you will lose access to your current hardware, software or applications. As with anything, there are a few exceptions to this, but by and large it shouldn't be a problem.

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Portability

Did some hardware get destroyed? The created backups can easily be moved to other servers, allowing you to be up and running again in moments. Not only that, but having a standby virtual machine (VM) ready for use in case of a disaster can lead to even quicker recovery time for your environment. It's as simple as plug and play.

Deployment

Without virtualization, developers and system administrators would often host multiple components such as their databases, web servers, and middleware on the same server due to physical hardware limitations. With virtualization, these functions can be spread across an array of much smaller instances allowing for the best security settings to be in place per instance. Virtualization has grown over the years and has exploded in the IT realm. It has saved countless companies time, money, and provided them peace of mind. Security is often an afterthought, but it is a core value in choosing virtualization. If your company is looking for greater isolation and abstraction, simpler rollback and deployment, and easier portability with your environments, virtualization is the answer you're looking for. Alliance has been helping small and mid-sized organizations with virtualization since the beginning. Let us help you lock down your environment.

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