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Chapter 6: Security

Blade server security is not unlike rack or standalone server security, but here you'll find a few ways to ensure a secure blade server environment.

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Table of Contents:

Blade server security on a storage area network (SAN)

Russell Dean Vines
May 2, 2007

I am consulting for a company that uses virtualized servers running on blades, and I have some real concerns. The blades don't have a hard disk, so all the data is going off to a storage area network (SAN). Do you have any suggestions about how to make this data more secure?

Russell: To answer this question, I went to a great source, Anne Skamarock, co-author of Blade Servers and Virtualization: Transforming Enterprise Computing While Cutting Costs. She says: "The person who asks this question doesn't discuss what the distances are for the SAN or what protocols are being used but, again, this has little to do with the blades and everything to do with implementing network and SAN security. Depending on what their bladed architecture is, the blade chassis can actually add to the security because the first set of network switches are often housed within the blade chassis, adding to physical security.

"If the blades are completely diskless, that means they are booting via Preboot Execution Environment (PXE). This is probably the area where the concern lies due to the http-like nature of PXE. This environment, at least today, does not provide a way for detecting and disallowing unknown servers from performing remote installations. Because of this, one would follow the same best practices to secure the PXE as they would to secure their overall network such as:

- Physical security
- Firewalls
- Auditing and monitoring for intrusions
- Strong password protocols/procedures"

Blade server security hardware advice

Russell Dean Vines
April 16, 2007

I am thinking about consolidating my customer's data with a blade server, and wanted to consider all pros and cons. I have been considering the IBM, HP and Sun blade server products. Do you have any security advice about these? Are there other products available that are better from a security standpoint?

Russell: The move from physical servers to blades is about increasing cost to lower footprint and improve management. Most blade server products provide similar security features regardless of the vendor, and especially if you use a major, established producer.

The security issues with any blade server are pretty much the same as with rack servers or standalone servers. There is a physical security advantage to having the servers consolidated, but the network security issues are pretty much exactly the same as they are with standalone servers.

At this point, I don't know of specific hacks that can compromise blade servers over individual servers, or hacks that would allow someone to move from an individual server into a blade management infrastructure and then compromise another server.