Linux Kernel to Add VMI

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The next stable update to the Linux kernel, Version 2.6.21, is slated to include a new feature submitted by VMware called Virtual Machine Interface.

Virtualized operating system instances can enjoy performance and management benefits if their kernels are modified to communicate with the hypervisor under which they run. This arrangement is called paravirtualization.

The initial promise of Virtual Machine Interface was that it would provide a common protocol across which multiple hypervisors could communicate with the Linux kernel instances they paravirtualize, as opposed to having different sets of hooks built into Linux for different hypervisors.

The idea is similar to the Linux Security Module framework, on which both the SELinux (Security-Enhanced Linux) and AppArmor rights-hardening technologies are built.

However, VMware's approach has faced some pushback among kernel developers, and VMware ended up modifying VMI to plug into a separate kernel paravirtualization interface, called paravirt_ops, which made its way into the stable Linux kernel with the last update (2.6.20).

Dialed-back ambitions or no, VMI is set to enter active service soon, as VMware's forthcoming Workstation 6.0 will make use of VMI-enabled kernels, including those that drive Linux distributions such as the soon-to-

ship Ubuntu 7.04.

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