FAQ

SUSE® Linux Enterprise Virtual Machine Driver Pack

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Novell®

What is the SUSE Linux Enterprise Virtual Machine Driver Pack?

The SUSE® Linux Enterprise Virtual Machine Driver Pack is a fee-based bundle of paravirtualized network, bus and block device drivers. It allows customers to run fully virtualized Windows* and Linux* workloads on SUSE Linux Enterprise Server with near-native performance. It does this by opening additional channels of communication between the Xen hypervisor in SUSE Linux Enterprise and the unmodified guest operating systems running in a virtual environment, accelerating network and storage input/output and improving overall efficiency.

What do customers get with the SUSE Linux Enterprise Virtual Machine Driver Pack?

The Driver Pack contains paravirtualized network, bus and block device drivers for Windows Server 2008 (32-bit and 64-bit), Windows Server 2003 (32-bit and 64-bit), Windows 2000 (32-bit), Windows Vista (32-bit and 64-bit) and Windows XP (32-bit and 64-bit). Paravirtualized device drivers for Red Hat Enterprise Linux 4 and Red Hat Enterprise Linux 5 are also available. The Driver Pack also contains an installation wizard, documentation and an End User License Agreement (EULA). The Driver Pack is only available electronically. Customers purchasing the Driver Pack will receive an e-mail directing them to a secure site where they can download the bundle.

Are paravirtualized drivers for SUSE Linux Enterprise included in the Driver Pack?

No. Paravirtualized drivers for SUSE Linux Enterprise Server are available, but not included in this Driver Pack. These drivers are distributed under an open source license and included in both physical and electronic media of SUSE Linux Enterprise Server and corresponding Novell® Customer Center update channels. Customers with a valid SUSE Linux Enterprise Server subscription are automatically entitled to maintenance and support for these paravirtualized drivers. The support terms and conditions for the drivers are inherited from the customer's underlying SUSE Linux Enterprise Server subscription.

Under what type of license are the paravirtualized drivers in the Driver Pack distributed?

The paravirtualized drivers for Windows in the Driver Pack are currently distributed under a proprietary license. The paravirtualized drivers for SUSE Linux Enterprise are currently distributed under an open source license. The paravirtualized drivers for Red Hat Enterprise Linux will be distributed under an open source license.

How much does the Driver Pack cost?

The pricing for the Driver Pack varies, depending on the term of the subscription and the number of virtual machines that are being run per physical server. List prices for the Driver Pack are as follows:

- One-year subscription, up to four virtual machines per physical server = US$299
- One-year subscription, unlimited virtual machines per physical server = US$699
- Three-year subscription, up to four virtual machines per physical server = US$749
- Three-year subscription, unlimited virtual machines per physical server = US$1,749

If a physical machine is being used to host virtual servers, where paravirtualized drivers from the Driver Pack are being used, that physical machine must have a Driver Pack subscription.

What type of support do customers get with the Driver Pack?

Purchasing the Driver Pack entitles you to maintenance and technical support (installation and break/fix) for the paravirtualized drivers contained in the Driver Pack. The support terms and conditions are carried over, or are inherited from the underlying SUSE Linux Enterprise Server subscription used to host the virtual servers. You must have a valid SUSE Linux Enterprise Server subscription in order to receive support for these paravirtualized drivers. They are not supported in any host environment, other than SUSE Linux Enterprise Server 10 SP1/SP2, SUSE Linux Enterprise Server 11, as minimum Xen 3.0.4 is needed to enable them. Purchasing the Driver Pack without a valid SUSE Linux Enterprise Server subscription does not entitle customers to support for the paravirtualized drivers.

Who is authorized to sell the Driver Pack, and when and where can customers buy it?

Customers can purchase the Driver Pack from participating distributors and resellers and Novell direct channels.

Where can I get more information about the SUSE Linux Enterprise Virtual Machine Driver Pack?

More information about the Driver Pack is available at www.novell.com/products/vmdriverpack

You can also download a product flyer at www.novell.com/linux

What is the difference between full virtualization and paravirtualization?

Full virtualization is called "full" because the entire system's resources are abstracted by the virtualization software layer. Paravirtualization is called "para" because only a portion of the system's resources, or partial amount, is abstracted. Application programming interfaces (APIs) enable communication or provide

assistance in certain situations. Paravirtualization requires that the guest operating system running on the host server be modified so that it recognizes the virtualization software layer, while fully virtualized workloads do not require any change or modification to their guest operating systems. However, fully virtualized workloads leveraging Xen do require that the host physical systems contain Intel Virtualization Technology (Intel-VT) or AMD* Virtualization technology (AMD-V).

What's so important about these paravirtualized drivers?

Paravirtualization typically delivers higher performance than full virtualization because the operating system and hypervisor work together more efficiently without the overhead imposed by the emulation of the entire system's resources. However, paravirtualization requires that guest operating systems be modified to recognize the hypervisor, and while more and more operating systems today are being modified to recognize the Xen hypervisor, only a subset of the major operating platforms have been modified. Although fully virtualized workloads run slower than their equivalent paravirtualized ones, full virtualization does not require that the guest operating system be modified. Therefore, more workloads and guest operating systems today can be fully virtualized than can be paravirtualized. The paravirtualized drivers in the Driver Pack deliver the performance benefits of paravirtualization, with the wider availability of full virtualization.

How will this benefit customers?

Novell was the first enterprise Linux distributor to provide customers with the ability to run virtualized Linux workloads using the Xen hypervisor technology integrated in SUSE Linux Enterprise 10. Today, customers can now run fully virtualized Windows (and SUSE Linux Enterprise Server) workloads on Xen with full support from Novell, and achieve performance comparable to paravirtualized workloads. Customers are also able to virtualize a wider variety of workloads and use a wider range of guest operating systems with these paravirtualized devices and block drivers, increasing flexibility, performance and choice.