Solution Brief

Symantec Endpoint Virtualization Suite

Symantec Workspace Streaming

Symantec Workspace Virtualization

Intel® Centrino® 2 with vPro™ technology

Intel® Core™2 Processor with vPro™ technology

Symantec Endpoint Virtualization Solutions for PCs with Intel® vPro™ Technology

Company	Symantec is a leading provider of service-oriented management solutions that help reduce the cost and complexity of IT ownership through automation.
Business Challenge	Reducing the cost of managing endpoints while improving visibility, application license compliance, and end-user productivity.
Technology Solution Enhanced By	Symantec Workspace Streaming, Symantec Workspace Virtualization, Intel® Centrino® 2 with vPro™ technology and Intel® Core™2 processor with vPro™ technology.[1]

Reduce IT costs through self-service application delivery, enhanced software asset management, and smart updates for mobile users

Symantec and Intel are working closely to help IT administrators reduce the cost and complexity of IT services for laptop and desktop PCs. IT administrators can use Symantec's Endpoint Virtualization solutions with Intel® Centrino® 2 with vPro™ technology and desktop PCs with Intel® Core™2 processor with vPro™ technology to automate application delivery and license management, and improve mobile productivity and compliance.[2]

Combining Intel hardware and Symantec software increases visibility of software assets, even when the system is powered down, and provides a common delivery and management framework across all endpoint configurations – laptop, desktop, remote, virtual, and unmanaged. This results in higher productivity for end users and reduced costs for IT management and support.

Today's challenges

Every year, endpoint management gets more difficult, with a higher percentage of systems shared, frequently offline, or powered down during normal update and inventory, cycles. Typically, IT managers are required to spend more time and use more tools to access, inventory, and control these machines. Software asset management becomes more difficult, because the target systems are frequently unavailable, and even when online, many systems are remote laptops that require greater consideration of the environment, and conditions of the remote device, before they can be updated. The results can lead to poor license compliance, reduced productivity in the field, and a drain on IT resources.

The solution: Symantec Endpoint Virtualization solutions used on PCs with Intel vPro technology

Symantec Endpoint Virtualization can improve manageability and productivity across all endpoints, regardless of type, location, or power state, by taking advantage of hardware-based capabilities built into laptops and desktops with Intel vPro technology. Symantec's solutions now offer out-of-band license reconciliation, and bandwidth and battery consideration for mobile users, before applying application updates. License compliance can be verified, even when some PCs are in an off state, and the impact of application updates on mobile users will depend on their bandwidth and battery power state, as well as the level of need for the update in question.

Improving software asset management with out-of-band systems

When used on PCs with Intel Centrino 2 with vPro technology or Intel Core 2 processor with vPro technology, Symantec Endpoint Virtualization solutions can significantly improve system manageability. The Intel® Active Management Technology (Intel® AMT) features of Intel vPro technology-based hardware can enhance license management on the client device, even when the system is turned off (but still connected to the network). Symantec uses the non-volatile storage area in Intel vPro technology to store detailed information about the applications present on that machine as well as the corresponding licenses. License information about a machine is always available to the administrator whether the system is on or off. This allows complete validation and, if necessary, synchronization of spent or available licenses from the central asset management system.

An IT administrator can discover any changes that were made on the system while it was disconnected from the network. More importantly, policy changes can be applied to a powered-down system to ensure enforcement, even if the system is removed from the network prior to the next power-on session. For example, an application may be expired for the target machine so that the license may be used elsewhere. That system will then be unable to execute that application, and it will be automatically removed at the next system reboot. This functionality can be a critical blind spot when it comes to managing application licenses in today's enterprises. Now, full license status and control are available for all connected machines, even when they are powered off.

License cost optimization

Additional cost benefits can be found through the automatic license reharvesting feature of the Symantec Workspace Streaming product. Although this feature works well in most situations, there are times when the system is connected but off, and the additional functionality of Intel vPro technology-based PCs will expose the removed license to the administration console and allow the license to be returned to the pool for immediate redeployment. Identifying these opportunities sooner rather than later can lead to reducing the total cost of an application license, without an additional burden on the IT staff.

Better application delivery with context awareness

Remote and mobile users are among the most difficult endpoints to manage, for two reasons. First, they are not always connected, making traditional push management methodologies unreliable at best. Second, when they are connected, they are not always in the best condition to receive application updates. Maintaining end-user productivity at its highest levels is the primary objective of Symantec Endpoint Virtualization. PCs based on Intel vPro technology make it is easier to achieve that goal. Mobile systems allow a rapidly growing portion of enterprise populations to work when and where they want. Since they are frequently disconnected from the corporate network, a pull-based streaming approach to application management can offer significant advantages. A streaming-enabled system will be able to "check in" any time it is connected to the network, to obtain updates, new applications, and changes in provisions, among other things. This means that IT administrators do not have to worry about 100 percent deployment at the time of the change; they simply change a setting on the server. Systems that are connected will update immediately and transparently. The rest will update as they connect and are in a ready state to receive the updates.

An additional feature is offline readiness alert, which allows a user to disconnect from the network even if all offline blocks have not yet been streamed. Two other factors affect end-user productivity when IT administrators attempt to make changes on endpoints: network bandwidth and remaining battery life. Limits in either of these areas during updates can have a negative impact on productivity. A new set of rules has been added to the Symantec Endpoint Virtualization solution that leverages the mobility features of Intel Centrino 2 with vPro technology and Intel Core 2 processor with vPro technology. In combination with a determination of the level of need of the specified update, Intel vPro technology-based systems can determine if the network bandwidth is too low or if the remaining battery life is sufficient to attempt a non-critical update. In most cases, this information will allow the user to better complete the work at hand or preserve valuable battery life. IT managers have the option to designate updates as critical if they are to be deployed, regardless of network bandwidth or battery life.

Summary

Symantec Endpoint Virtualization solutions used on laptops with Intel Centrino 2 with vPro technology and desktop PCs with Intel Core 2 processor with vPro technology help IT administrators better manage application licenses and delivery, and maintain higher levels of end-user productivity through rule-based automation, out-of-band visibility and control, and context-aware application updates. IT can spend less time managing endpoints, while ensuring complete license compliance, regardless of device or location. These combined technologies also offer more opportunities to save significantly on license costs through license re-harvesting and synchronization between endpoints and the central database, even when the system is powered off.

These technologies enable users to have the latest versions of the applications they need, regardless of location or device, and to maintain the highest degree of productivity, even under adverse conditions, such as low network bandwidth and low battery power. End-user productivity is a high priority for IT organizations, and Symantec and Intel have raised the bar with self-service, streaming delivery and context-aware updates.

	Network Bandwidth		**Available Battery Power**	
	Below threshold	Above threshold	Below threshold	Above threshold
New application needed	Deliver	Deliver	Deliver	Deliver
Critical update	Deliver	Deliver	Deliver	Deliver
Non-critical update	**Wait**	Deliver	**Wait**	Deliver

Note: If any “wait” condition is detected, the update is not delivered at that time.

For more information

Laptops and desktop PCs with Intel vPro technology provide IT administrators with critical, hardware-based security and manageability capabilities not available in software-only solutions. When provisioned with third-party software, these PCs can be managed directly from the management console, regardless of their power state or the health of their OS[1].

For more information about laptops with Intel Centrino 2 with vPro technology and desktop PCs with Intel Core 2 processor with vPro technology, visit www.intel.com/go/businesspc

For more information about Symantec solutions, visit www.altiris.com/vpro

[1] Intel® vPro™ technology includes powerful Intel® Active Management Technology (Intel® AMT). Intel AMT requires the computer system to have an Intel® AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications of implementation of new business processes. With regard to laptops, Intel AMT may not be available or certain capabilities may be limited over a host OS-based VPN or when connecting wirelessly, on battery power, sleeping, hibernating, or powered off. For more information, visit www.intel.com/technology/manage/iamt.

[2] All content related to Symantec solutions was provided by Symantec.

[3] Intel® Virtualization Technology (Intel® VT) requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM), and, for some uses, certain platform software enabled for it. Functionality, performance, or other benefits will vary depending on hardware and software configurations and may require a BIOS update. Software applications may not be compatible with all operating systems. Please check with your application vendor.

[4] For detailed information about the security methodologies and technologies used to secure the capabilities of Intel® Centrino® 2 with vPro™ technology and Intel® Core™2 processor with vPro™ technology, refer to the Intel® Active Management Technology Deployment and Reference Guide, Intel 2006, at www.intel.com/business/vpro.

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