

3rd Party Applications on SC//HyperCore™: If It Runs On a Virtualized System, It Will Run On SC//HyperCore

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Introduction

IT is a complex system of hardware and software working together to run our modern industries and economies. No vendor can know or test every combination of IT solutions. For this reason, some choose to be overly cautious and declare perfectly valid solutions unsupported. These practices are inhibitors to innovators and IT departments that want to take advantage of groundbreaking technologies.

If it weren't for early adopters ignoring the ambiguous rules of supported or unsupported, new technologies would never get off the ground. It often only takes common sense to overcome the misinformation surrounding application support. At Scale Computing, trust is placed on the ability of IT vendors to come together to ensure support for applications, operating systems, virtualization, and hardware by putting customers first.

Applications Run on Operating Systems

The operating system lies between the computing hardware and the business applications that run our industries.

Most of these applications run on Windows or Linux operating systems. Some of these applications work directly with specific pieces of hardware, but the majority work only with the logical abstraction of the hardware from the operating system. In other words, the applications don't care what kind of processor, memory, or storage is in the server's physical hardware, only that sufficient CPU, RAM, network access, and storage resources are available.

Operating systems have so successfully made applications indifferent to hardware specifics that adding a hypervisor between the OS and hardware should not change anything about how the application runs. If it is running on a supported OS and has sufficient resources, the particular hypervisor has no impact on the operation of the application.

Application abstraction from physical hardware is practically the basis for the popularity of server virtualization. If an application can run in any virtualized environment, then there is little reason to believe it cannot run on Scale Computing HyperCore. This is because SC//HyperCore is a virtualization platform that uses a KVM-based hypervisor to support Windows and Linux operating systems. Before asking whether an application will be supported on SC//HyperCore, a few other questions should be answered first:

- Is the application tied to any specific server hardware components?
- Is the application licensing tied to any specific hardware components?¹
- Is the application specifically designed to interact with the virtualization hypervisor?

If the answer to these questions is no, which is true for most applications, then the only remaining question should be:

• Is the application supported on Windows or Linux?²

If the answer to this question is yes, then it will run on SC//HyperCore.

¹ This is often difficult to determine and evaluate. For example, USB licensing dongles can work with USB over IP sharing devices from third parties. But some apps do look for specific "hardware" IDs that may not exist inside VMs - and of those some may offer alternative licensing process, some don't. Application licensing requirements tied to hardware can generally be handled, but deeper inspection may be required.

² There are non-Windows and Linux OS - such as Unix-based FreeBSD-based and other packaged virtual appliances - that do work. Please visit for additional information.



Why Applications Vendors Might Say No

The primary reason why an application vendor would say no to application support on SC//HyperCore or any other virtualization platform is lack of experience. Simply testing on the various supported editions, versions, and service pack levels of Windows or Linux can be daunting for many software vendors. For this reason, some application vendors are sometimes wary of claiming support for anything they aren't actively testing. In reality, it would never be possible to fully test and therefore "officially" support an application on all these variations of Windows and Linux operating systems across the various hardware platforms and hypervisors available.

Application vendors get asked every day about support outside of what they can test. Commonly, they are asked if their application is supported by running alongside another application. There are thousands of applications that users will want to run together with any other application. The complexity of combining different applications on different platforms is a reality in IT. Do vendors have the ability to test all these applications and platforms together to make sure they are "supported"?

No way.

When virtualization platforms like VMware were first introduced into IT markets, application vendors were often unwilling to support VMware for their applications, even though early adopters were spinning up VMs with those applications and happily plugging away. Many vendors are often slower to adapt to users, which in turn causes mainstream users to slow adoption. It's a cycle the industry can't seem to break out of.

There are so many unknowns with application support that vendors usually have a better idea of what is not supported than what is. They likely are aware of some actual limitations and conflicts with specific operating systems, hypervisors, or even hardware components. Vendors probably have a list of known issues that will prevent the application from working successfully. This is why for application vendors, instead of asking if the application is supported with another vendor product, it can be beneficial to ask if there are any known issues with said product.

If there are, you know right where you stand; if not, then you likely have nothing to fear.

In these cases, where a vendor is unwilling to state specific support for a platform or product, ask for a reason. If, in the unlikely event that there is a problem, they should be willing to work to resolve any issue.

Multi-vendor support should be a shared responsibility and shared goal of customer satisfaction.



How Multi-Vendor Support Should Work

Multi-vendor support can be a messy business, especially when vendors are looking out for number one rather than their customers. As IT professionals, we've all run into situations where a problem of unknown origin goes through a troubleshooting cycle of finger-pointing between various vendors. The application vendor blames the operating system vendor, the operating system vendor blames the hypervisor vendor, the hypervisor vendor blames the storage vendor, and the storage vendor blames the application vendor, resulting in a vicious cycle of downtime and despair. No one in these situations wants to take responsibility for getting to the root cause of the problem, much less fixing it.

This causes a problem because - even with hyperconverged infrastructure solutions like Scale Computing Platform, which eliminate most multi-vendor issues from the infrastructure - IT will always be a mix of a multi-vendor environment with application vendors. Vendors who don't have the right resources or the right approach to working with other vendors on support are often a bigger problem than trying to fix the actual technical problem.

Multi-vendor support should work differently. Vendors need to work together to find the root cause cooperatively, and then when the root cause is known, the vendor solution(s) causing the problem should take responsibility for a fix.

While the customer is involved, they do not need to be a switchboard operator connecting the communications between the various vendors. Vendors should take the initiative to reach out to each other to resolve the issue, which is why organizations like TSANet exist. TSANet is a multi-vendor support community for vendors to work together in a neutral community environment.

Scale Computing is a member of TSANet, because it speeds the support process and leads to quicker resolutions for multivendor issues. Each vendor adequately supporting their product in a multi-vendor IT environment is what alleviates the burden of the unknown from support. Will the application run on an untested platform? It should, and if it doesn't, vendors can work together to find out why not and offer a resolution quickly. Vendors should take the initiative to reach out to each other to resolve the issue.

Scale Computing Partner Ecosystem

We place trust in the ability of IT vendors to come together to ensure customer-centric support for applications, operating systems, virtualization, and hardware. In real-world situations, Scale Computing has rarely heard of application vendors refusing to support and remedy issues with their applications, regardless of where they run. In reality, most application vendors don't know or bother to ask on what platform it is running, as long as it runs on their supported OS.

Scale Computing Platform is fully integrated and supported across a wide range of software and hardware. We verify and support a broad range of operating systems and versions running as virtual machines on Scale Computing HyperCore. If an application is designed to run on Windows or Linux and x86/x64 platforms, it is almost always supported on SC//HyperCore. We also have specific partnerships with select hardware and software technology providers.

What Does Scale Computing Support?

One common question prospective customers ask is, "Are my applications supported on Scale Computing HyperCore?" The answer to that question, at least 99% of the time, is "Yes, the application is supported and works great." In most cases, Scale Computing can reference numerous SC//HyperCore users running the applications requested.

Scale Computing supports the entire SC//Platform of hardware, software, and services. This includes the HyperCore operating system which includes software-defined storage and the virtualization hypervisor. Scale Computing provides a clear list of supported operating systems including Windows and Linux operating system versions and editions in the HyperCore Support Matrix.

Scale Computing supports and offers fixes for our hardware and virtualization platform. For applications, Scale Computing is fully prepared to support Windows and Linux operating systems running on SC//HyperCore and therefore, applications designed to run on Windows and Linux should be supported by their vendors for SC//HyperCore. Operating system vendors offer fixes for operating system issues. Application vendors offer fixes for application issues. Working together, there should be no issue supporting applications on SC//HyperCore that are designed to run on Windows or Linux.

Conclusion

There are exceptions to every rule (such as applications that require proprietary hardware, for example), but if the application being inquired about is designed to run on Windows or Linux and on x86/x64 platforms, then it is almost always supported. Scale Computing tests and supports a broad range of operating systems and versions running as virtual machines on SC//HyperCore (see Scale Computing HyperCore Support Matrix for complete details).

The actual applications running in those VMs are generally completely transparent to SC//HyperCore. Occasionally, when the question of support is asked of the application vendor, the answers can vary and sometimes cause confusion. There are a number of reasons why application vendors may waiver in their support for applications on platforms like SC//HyperCore, and they all need to be considered.

If you have questions about whether your applications are supported on SC//HyperCore, please contact us at +1-877-722-5359 or info@scalecomputing.com. If you would like us to work directly with your application vendor to make sure your applications are supported, we would be happy to do so. Have your application vendor contact Scale Computing at bd@scalecomputing.com.

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