

SharePoint Virtualization and the Benefits of Modern Data Protection with Veeam Explorer for Microsoft SharePoint

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Intro/Executive Summary

SharePoint server has become synonymous with shared document management, efficient online document stores, quality web based access to documents, online collaboration, and Microsoft Office Web Applications. One of the painfully dirty secrets associated with SharePoint that no one wants to talk about is backup and restoration. All of that centralized stored and managed data has to be protected. Each of the operating components of the SharePoint environment has to be protected. Every business that runs SharePoint is looking for ways to reduce both downtime and data loss by pushing stronger and stronger Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO). Those processes can be daunting, if not downright ugly, not to mention incredibly expensive in terms of dollar cost as well as time. It doesn't have to be that way! Virtualizing the SharePoint environment can provide a pathway for simple, yet powerful, SharePoint backup. In addition to the huge strides in backup there are also some industry disrupting innovations from Veeam Software in the form of a free tool called Veeam Explorer for Microsoft SharePoint that have made the recovery of SharePoint objects so easy that a cavema...... Well you know.



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Virtualizing SharePoint

Since the late 2000's virtualization has become an IT buzzword. Virtualization brings with it a series of very intriguing promises.

- 1. Server Consolidation The running of multiple operating systems and their associated infrastructure workloads on a single set of physical hardware.
- 2. Increased Utilization These higher percentages can be achieved through efficient resource allocation to virtual machines on a set of hardware.
- 3. Decreased total cost of ownership (TCO) Through a change in expenditure models from a Capital Expenditure (CapEx) model to an Operating Expenditure (OpEx) model.
- 4. Potential benefits associated with doing business in "The Cloud."

IBM started the virtualization revolution back in the late 1960's and early 70's but the technology really took fire under the care of VMware in the 2000's. Microsoft entered the virtual fray with Hyper-V in 2008 and has since become a real player in the virtualization marketplace. Regardless of the hypervisor that you choose the benefits of virtualization are real, and the promises of virtualization cannot be ignored.

It would seem like the benefits of virtualization are specifically tailored to meet the complex world of SharePoint server. Imagine running all of your SharePoint servers as virtual machines. Microsoft has reviewed and approved the running of SharePoint in a virtual environment as long as it meets some conditions. The first condition is that Microsoft would prefer that you run SharePoint in Hyper-V. This makes sense when you consider that Microsoft can both test and validate SharePoint operations in the Hyper-V hypervisor. SharePoint on Hyper-V also makes great sense when you consider the unique storage capabilities of Hyper-V as it is included with Windows Server 2012. What if you are with a company that doesn't use Hyper-V? Luckily, you are not alone. Microsoft clearly understands that they do not own the hypervisor marketplace and as such have provided a way to validate virtualization platforms outside of Hyper-V.

Microsoft operates a program called the Server Virtualization Validation Program (SVVP) whose stated goal is

"To improve customers' support experiences when running Windows Server on virtualization technologies other than Hyper- V^{TM} and Virtual Server,..."

The long and short of this is that Microsoft is very clear that its Windows Server platform and associated solutions (Exchange, SQL, SharePoint, etc.) will certainly be used in virtual environments that are not native to Microsoft. So if you use VMware or HP or any other approved SVVP virtualization products you can still run SharePoint in a supported manner.

In order to use SharePoint in a virtual environment it is advisable to spend some time with the available documentation at Technet.Microsoft.com planning your virtual SharePoint implementation. Specifically you will want to use the "Plan for on-premises or hosted virtualization in SharePoint 2013." This multi-part

document can help you with the details of getting the right configuration, and the right resources, to support your SharePoint deployment and operations. If you are scratching your head at this point wondering when we are going to get to the details of backing up and restoring SharePoint your wait is over.

Backing-Up SharePoint

I grimace each time I read the official documentation on backing up and restoring SharePoint. Does anyone really use this set of tools to backup their real SharePoint farms? It seems too complicated and cumbersome. I know the SharePoint central administration website has some amazing capabilities but backup is not one of them. PowerShell can also be used to backup SharePoint, but does not make the process any easier, although with PowerShell you could build in some degree of automation. The underlying hardware in a SharePoint Farm really makes the backup process complicated. The problem seems to be that because SharePoint is a conglomeration of SQL and IIS with a smattering of File and Storage services delivered as an unspecified number of websites that the process of backup therefore has to be done with a piecemeal approach to each operating component. Here again the problems associated with backup are tied to the combination of software and its underlying hardware. Each component must be dealt with on an item by item basis, and to complicate matters further The SharePoint data is constantly growing and evolving.

There is one quote that keeps me up late at night when thinking about SharePoint backup. It rings in my mind over and over again. It comes from the Prepare to back up and restore farms in SharePoint 2013 page. There is a title that says "Restrictions when you backup and restore SharePoint 2013." Then follows this line that haunts administrators everywhere;

"You can't back up or restore everything in a SharePoint environment."

That's the point where I usually sit straight up in bed in the cold sweat. Now to Microsoft's credit I really think they are trying to help the IT folks out there understand that there is an underlying reliance on hardware in a SharePoint Farm that no amount of backup is going to protect. I still don't sleep!

The question is can you eliminate this overwhelming reliance on hardware by abstracting that hardware with a hypervisor and moving your SharePoint Farm on to Virtual Machines? The answer is YES! Since that is true, can you then also backup and restore everything in a SharePoint environment? Here again the answer is YES!

There is more good news. The painful complexity associated with backing up SharePoint that you just have to endure in a physical environment is not a necessity in the virtual world. In fact with Veeam Backup & Replication the processes are so easy a cavema...... well you know.

Veeam

Just over 5 years ago Veeam began as a company focused on backup and restoration in the virtualization marketplace. They worked with key hypervisor manufacturers like VMware and Microsoft to build solutions that just work. They have introduced innovations that have garnered the attention and loyalty of over 60,000 customers from all segments of the virtualization marketplace and as of this writing are protecting somewhere in the neighborhood of 8.5 million virtual machines. The question is why?

Veeam is built for virtualization! VM's are not physical machines. Applying the principles and practices associated with data protection in physical machines doesn't work for VM's. Veeam Backup and Replication is a powerful, easy-to-use, and affordable solution for backup, restore, and replication of VM's. Veeam Backup & Replication can be used to backup your SharePoint environment if it is running on VM's.

One of the key challenges associated with the backup of SharePoint, and every other infrastructure workload, running in the traditional physical environment was the necessity of adding agents to the operating systems or applications that needed to be backed up. These agents provided functions such as quiescence, monitoring, and reporting functions to ensure successful backup. Veeam does not require these agents in order to protect the VM. In the virtual environment the VM can be protected in its entirety without the use of expensive agents running in the VM.

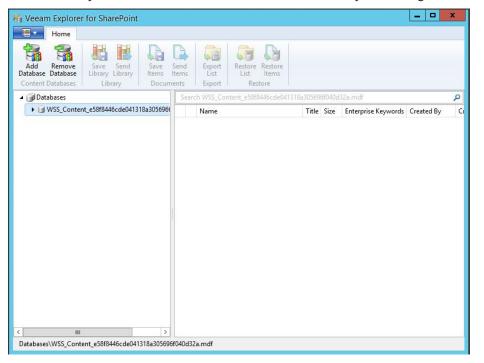
Regardless of the type of SharePoint workload, if it is running in a virtual environment, Veeam Backup & Replication can be used to successfully backup the VM and its associated snapshot, configuration, settings, and binary files. This process effectively captures everything associated with the SharePoint Farm. The true beauty is that the whole backup occurs while the SharePoint servers are running. There is no interruption in service level! Innovative techniques for data compression and de duplication can be used to enhance physical disk savings on the disks where the backup files are stored while still providing excellent recovery potential.

SharePoint farms running in a virtual environment with Veeam Backup & Replication lets you sleep confident in the knowledge that your SharePoint farm is protected. With the elimination of the complicated physical infrastructure, abstraction of hardware by the hypervisor, and the removal of the need for complex and costly agent based tools running on each SharePoint component the process of protecting your SharePoint farm becomes so easy a cavema...... well you know!

Recovering SharePoint Data with Veeam Explorer for Microsoft SharePoint

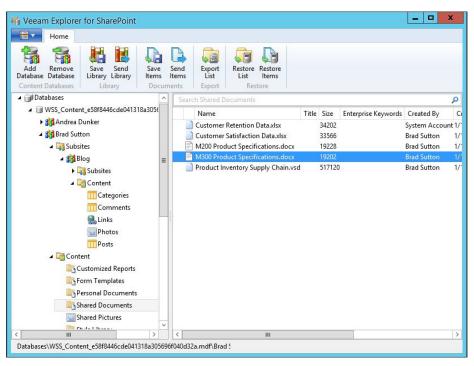
Veeam Explorer for Microsoft SharePoint introduces a single tool that can easily be used to backup, compress and DE duplicate SharePoint data stores. But—the real beauty of this powerful tool comes when it's time to restore. Imagine a user calls your helpdesk and says...

"I accidentally deleted a file from SharePoint and I really need to get it back!"



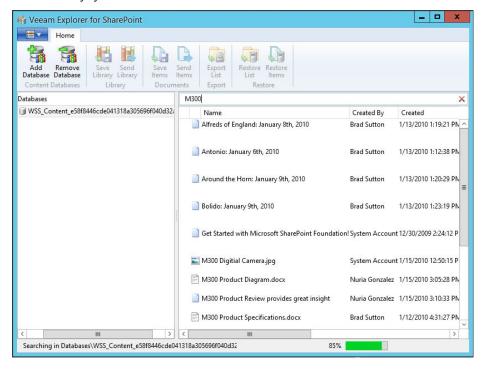
At this point your helpdesk Tech smiles and opens Veeam Explorer for Microsoft SharePoint. He makes sure the desired content database has been added.

Now your Tech can access the SharePoint database from within the compressed, DE duplicated backup file. No restoration of the backup file is necessary. The data is displayed just as if your Tech were looking at files in Windows Explorer.

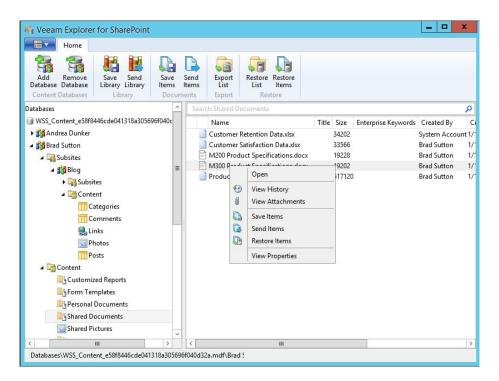


"Can you tell me the name of the file?"

As the user gives the name of the file your Tech simply browses to the desired file location. And, if the user doesn't know the name or location of the file, don't worry, your Tech can use the built in search feature to find it.



And when your Tech finds the file, he can just right-click the file and choose to restore it to SharePoint, send the file to the user, or simply copy it to another location. No full database restoration is necessary. It's that simple, and the process literally takes a couple minutes to accomplish.



The process is possible because Veeam Explorer for Microsoft SharePoint has the ability to enumerate the contents of the SharePoint content database files even if those files happen to be a part of an existing backup (and that backup does not necessarily have to be made by Veeam Backup & Replication.) Veeam Explorer for SharePoint is disrupting the market again by turning what used to be a complex, expensive and time-consuming process into yet another powerful, easy-to-use and affordable Veeam feature.

Recovering files from a SharePoint database is so easy that a cavem....well, you know!

Conclusion

Microsoft SharePoint can and should be run in a virtual environment. The benefits of server consolidation, reduced TCO, and hardware abstraction are significant for SharePoint Farms. Veeam Backup & Replication can provide the desired reductions in RPO and RTO times for your SharePoint Farms through quality backup of VMs, with no install of agents necessary on the VM, and amazing object recovery with Veeam Explorer for Microsoft SharePoint.

Microsoft SharePoint in a virtual environment with Veeam Backup & Replication and the Veeam Explorer for Microsoft SharePoint can provide you with an optimum set of resources for shared document management, efficient online document stores, quality web based access to documents, and Microsoft Office Web Applications. Best of all you can sleep well at night confident in the knowledge that all of the data in the SharePoint farm is being protected, and can easily be recovered with Veeam.

About the Author



Chris Henley is a Veeam Product Strategy Specialist with extensive expertise with Windows Server and virtualization. He is a Microsoft Certified Professional (MCP), a Microsoft Certified Solutions Expert (MCSE) and Microsfot Certified Systems Administrator (MCSA). Chris is a published author, and popular speaker, who loves technology. He has developed a wealth of experience over teh course of his long career in IT.

About Veeam Software

Veeam® Software develops innovative solutions for VMware backup, Hyper-V backup, and virtualization management. Veeam Backup & Replication™ is the #1 VM Backup solution. Veeam ONE™ is a single solution for real-time monitoring, resource optimization, documentation and management reporting for VMware and Hyper-V. Veeam extends deep VMware monitoring to Microsoft System Center with Veeam Management Pack™ (MP), and to HP Operations Manager with Veeam Smart Plug-In™ (SPI). Veeam also provides free virtualization tools. Learn more by visiting www.veeam.com.







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- **Affordable:** No agents to license or maintain, works with your existing storage, and includes deduplication, VM replication, Microsoft Exchange recovery, and more!

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