



Veritas Resiliency Platform 3.2 offers key features that can benefit large enterprise businesses

Research comparison of Veritas Resiliency Platform 3.2 and Zerto Virtual Replication 6.0

Executive summary

At Principled Technologies, we performed a detailed review of publicly available information to compare two disaster recovery tools: Veritas Resiliency Platform 3.2, and Zerto Virtual Replication 6.0. Both products are solutions for continuous data protection. These resiliency products center around virtual machine (VM) replication, which allows organizations to synchronize their protected VMs to hardware in other data centers (or to the cloud) to defend against failure. While protected, the secondary data center can quickly spin up VMs in the event of disaster in the primary data center, with little disruption to the applications. In this report, we show how Veritas Resiliency Platform 3.2 could be a better option than Zerto Virtual Replication 6.0 for large enterprises with thousands of VMs that need protection.



Replication features

While Veritas Resiliency Platform (VRP) and Zerto Virtual Replication offer similar capabilities for basic virtual machine replication, VRP packages their functionality in a way that benefits large enterprises that must protect thousands of machines and workloads. Both the VRP Resiliency Group and Zerto Virtual Protection Groups (VPG) allow users to select VMs to group together, service objective levels, networking options, and more. However, VRP allows administrators to define many of these parameters outside of the individual resiliency group. Users can predetermine networking pairings between data centers,¹ retention policies, and other SLA definitions.² When users create the VRP resiliency group, they can choose from predetermined values to expedite the process and to ensure resiliency groups comply with company policy, all while helping to eliminate user error that can occur by accidentally choosing the wrong values. In Zerto Virtual Replication 6.0, each VPG requires the user to manually set the networking, SLA, and other settings each time, which could lead to user error and would likely increase the time required for initial setup.³

Another point of flexibility that VRP offers is their Virtual Business Service (VBS) which allows users to group existing resiliency groups into larger bundles called Business Groups. Each VBS allows users to set the priority of the individual resiliency groups so that during disaster recovery, the highest priority applications will be the first to return to functionality.⁴ Zerto Virtual Replication 6.0 allows users to specify a boot order for VMs within a Virtual Protection Group, but that order applies only to the VMs within that VPG.⁵ The VBS allows users to set different service objectives for each resiliency group,⁶ group them in a particular recovery order, and recover a large set of related VMs together rather than having to failover several smaller groups of VMs.⁷

Administrative features

VRP also offers some advantages to large enterprises through basic administration tasks. The VRP Resiliency Manager offers centralized management of all data centers, VMs, resiliency groups, and the like. Administrators can create and monitor resiliency groups and virtual business services, generate reports, create and automate tasks, test failovers, and conduct disaster recovery activities as necessary all from the same console.^{8,9} Zerto Virtual Replication 6.0, by default, has a separate console for each Zerto Virtual Manager (ZVM) deployed. Each separate site will have at least one ZVM, meaning a separate console for each site.¹⁰

Zerto does offer two tools that help centralize their environment: Zerto Analytics and Zerto Cloud Manager. Zerto Analytics is a web-based console that shows a dashboard-style summary of all Zerto sites and VPGs as well as some reporting options. Users can click through the analytics site to get to the management site for each VPG.¹¹ Zerto Cloud Manager allows administrators to set up multi-tenancy to manage who sees what resources. Again, while there is no direct management option in the Cloud Manager, there are links to the ZVM web console for each data center.¹²

VRP offers extensive, built-in task automation, allowing users to create blueprints or resiliency plans to automate migrations, rehearsals, and

more.¹³ Users can also create evacuation plans that allow for migration of multiple resiliency groups and/or VBSs simultaneously.¹⁴ Zerto Virtual Replication 6.0 does not have built-in task automation. Instead, they offer PowerShell Scripts and REST APIs to allow users to create their own automations. Zerto Replication 6.0 includes sample scripts and documentation for using these tools.¹⁵ However, Veritas offers the ability to automate tasks quickly and easily within the management console, providing built-in task automation that should not require users to develop scripts prior to being able to automate more complex functions.

VRP also has robust reporting tools to help administrators keep track of the environment. Administrators can use the reports to learn about their inventory, assess disaster recovery operations, and track risks. Admins can also filter reports by several different views such as globally, by application, by VMs, by resiliency groups, and more.¹⁶ Meanwhile, in their per-site ZVM consoles, Zerto Replication 6.0 offers only six reports, showing outbound protection over time, protection over time by site, recovery, resources, monthly usage, and VPG performance.¹⁷ Additionally, Zerto Analytics offers a few options that cover RPO, journal status, and networking over a maximum of the last 30 days.¹⁸

Miscellaneous features

VRP offers even more features suited for the large enterprise business, including DNS integration, built-in encryption, and scaling.

DNS integration

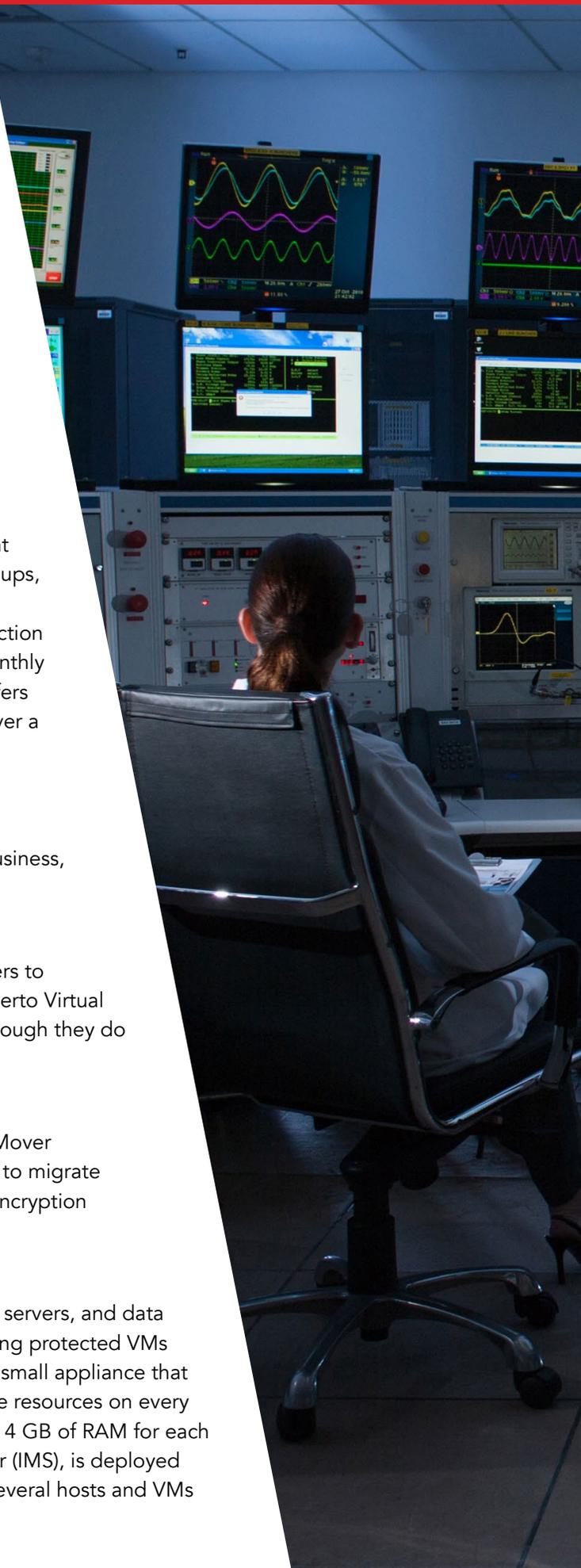
VRP fully integrates with a company's DNS servers, allowing users to manage their IPs and security through DNS servers as usual.¹⁹ Zerto Virtual Replication 6.0 does not natively integrate with DNS servers, though they do offer scripting for DNS integration of managed VMs.^{20,21}

Built-in encryption

VRP also gives users the option to add encryption to the Data Mover pairs, ensuring that the link between data centers that VMs use to migrate is encrypted.²² Zerto Replication 6.0 does not offer any native encryption between sites.²³

Scaling

While both products allow for scaling to large numbers of VMs, servers, and data centers, Zerto Virtual Replication 6.0 requires every server hosting protected VMs to also host a Virtual Replication Appliance (VRA). The VRA is a small appliance that directly manages the VMs on each host. While small, it does use resources on every single host across each site. Zerto recommends two vCPUs and 4 GB of RAM for each VRA.²⁴ The VRP VM manager, Infrastructure Management Server (IMS), is deployed on a single host per site and can manage assets consisting of several hosts and VMs per site.²⁵





Third-party integrations

Finally, VRP offers integration with several third-party replication technologies: EMC SRDF, NetApp SnapMirror, Hitachi True Copy/Hitachi Universal Replicator, EMC Recover Point, HPE 3PAR Remote Copy, IBM XIV, IBC SVC, and Microsoft Hyper-V Replica.²⁶ Zerto Virtual Replication 6.0 does not offer ready-made integrations for any of these third-party assets. For large enterprises currently invested in any of these products, a solution that comes ready to plug into existing technologies is a big advantage.

Conclusion

In researching these two solutions for virtual machine replication, we found that Veritas Resiliency Platform 3.2 offered a few key benefits over Zerto Virtual Replication 6.0 when it comes to large enterprises. With centralized management, built-in task automation, DNS integration, and more, VRP may be a solution worth exploring for your enterprise business needs.

- 1 "Creating network pairs between production and recovery data centers," accessed September 27, 2018
https://veritashelpsupport.com/Welcomelocale=EN_US&context=VRP_3.2#VRP~vrp-32_v129897869_v132639430
- 2 Veritas, "Veritas Resiliency Platform 3.2 Overview and Planning Guide," accessed September 27, 2018
https://www.veritas.com/content/support/en_US/doc/132640327-133158691-1, page 6
- 3 Zerto, "Zerto Virtual Manager Administration Guide," p. 29, accessed September 27, 2018
http://s3.amazonaws.com/zertodownload_docs/6.0_Latest/Zerto%20Virtual%20Manager%20vSphere%20Administration%20Guide.pdf
- 4 "About virtual business services," accessed September 27, 2018
https://veritashelpsupport.com/Welcomelocale=EN_US&context=VRP_3.2#VRP~vrp-32_v105396111_v132639430
- 5 Zerto, "Zerto Virtual Manager Administration Guide," p. 364
- 6 Veritas, "Veritas Resiliency Platform 3.2 Overview and Planning Guide," p. 6
- 7 "Starting and stopping a virtual business service," accessed September 27, 2018
https://veritashelpsupport.com/Welcomelocale=EN_US&context=VRP_3.2#VRP~vrp-32_v102730117_v132639430
- 8 "About Resiliency Manager," accessed September 27, 2018
https://veritashelpsupport.com/Welcomelocale=EN_US&context=VRP_3.2#VRP~vrp-32_v106382648_v132639430
- 9 "Tour of the Resiliency Platform web console screen," accessed September 27, 2018
https://veritashelpsupport.com/Welcomelocale=EN_US&context=VRP_3.2#VRP~vrp-32_v102171106_v132639430
- 10 Zerto, "Zerto Virtual Manager Administration Guide," p. 10; 20–21
- 11 "Zerto Analytics Demo," accessed September 27, 2018
<https://www.youtube.com/watch?v=dR3oWNCrzg8>
- 12 "Zerto Cloud Manager Administration Guide," p. 64, accessed September 27, 2018
http://s3.amazonaws.com/zertodownload_docs/5.5U3/Zerto%20Cloud%20Manager%20Administration%20Guide.pdf

- 13 "About resiliency plans," accessed September 27, 2018
https://veritashelpsupport.com/Welcome?locale=EN_US&context=VRP_3.2#VRP~vrp-32_v105213454_v132639430
- 14 "About evacuation plan," accessed September 27, 2018
https://veritashelpsupport.com/Welcome?locale=EN_US&context=VRP_3.2#VRP~vrp-32_v118375027_v132639430
- 15 Eugene J Torres, "Zerto Automation with PowerShell and Rest APIs," accessed September 27, 2018
<http://www.gene-torres.com/2017/10/26/zerto-automation-with-powershell-and-rest-apis/>
- 16 PallaviA, "Dashboard and reports in Veritas Resiliency Platform," accessed September 27, 2018
<https://vox.veritas.com/t5/Veritas-Resiliency-Platform/Dashboard-and-reports-in-Veritas-Resiliency-Platform/td-p/751906>
- 17 Zerto, "Zerto Virtual Manager Administration Guide," p. 331
- 18 "Zerto Virtual Replication 6.0 Demo with Analytics," accessed September 27, 2018
<https://vimeo.com/255395721>
- 19 "Configuring DNS server settings for a data center," accessed September 27, 2018
https://veritashelpsupport.com/Welcome?locale=EN_US&context=VRP_3.2#VRP~vrp-32_v110321172_v132639430
- 20 "Do VRAs Rely On or Use DNS?" Accessed September 27, 2018
<https://www.zerto.com/myzerto/knowledge-base/do-vras-use-dns/>
- 21 "DNS Pre / Post - Recovery Script," accessed September 27, 2018
<https://www.zerto.com/myzerto/forums/topic/dns-pre-post-recovery-script/>
- 22 "Modifying encryption for a Replication Gateway pair," accessed September 27, 2018
https://veritashelpsupport.com/Welcome?locale=EN_US&context=VRP_3.2#VRP~vrp-32_v116801349_v132639430
- 23 "Security and hardening with Zerto Virtual Replication," p. 7, accessed September 27, 2018
http://s3.amazonaws.com/zertodownload_docs/Latest/Security%20and%20Hardening%20with%20Zerto%20Virtual%20Replication.pdf
- 24 "Zerto Virtual Replication - Prerequisites & requirements for vSphere environments," accessed September 27, 2018
http://s3.amazonaws.com/zertodownload_docs/Latest/Zerto%20Virtual%20Replication%20vSphere%20Enterprise%20Guidelines.pdf
- 25 "About Infrastructure Management Server (IMS)," accessed September 27, 2018
https://veritashelpsupport.com/Welcome?locale=EN_US&context=VRP_3.2#VRP~vrp-32_v106382652_v132639430
- 26 "Veritas Resiliency Platform 3.2 Hardware and Software Compatibility List," accessed September 27, 2018
https://www.veritas.com/content/support/en_US/doc/132640492-133158251-1

This project was commissioned by Veritas.



Facts matter.

Principled Technologies is a registered trademark of Principled Technologies, Inc.
 All other product names are the trademarks of their respective owners.

DISCLAIMER OF WARRANTIES; LIMITATION OF LIABILITY:

Principled Technologies, Inc. has made reasonable efforts to ensure the accuracy and validity of its testing, however, Principled Technologies, Inc. specifically disclaims any warranty, expressed or implied, relating to the test results and analysis, their accuracy, completeness or quality, including any implied warranty of fitness for any particular purpose. All persons or entities relying on the results of any testing do so at their own risk, and agree that Principled Technologies, Inc., its employees and its subcontractors shall have no liability whatsoever from any claim of loss or damage on account of any alleged error or defect in any testing procedure or result.

In no event shall Principled Technologies, Inc. be liable for indirect, special, incidental, or consequential damages in connection with its testing, even if advised of the possibility of such damages. In no event shall Principled Technologies, Inc.'s liability, including for direct damages, exceed the amounts paid in connection with Principled Technologies, Inc.'s testing. Customer's sole and exclusive remedies are as set forth herein.