

Nominee: Zerto

Nomination title: Zerto Virtual Replication

Zerto has become the standard for disaster recovery and business continuity in virtualized data centers and cloud environments.

Recovering data - and specifically the business processes that companies rely on - is high on the priority list of every IT department. The modern data center has gone through many changes in recent years that complicate efforts of IT departments to protect their data. Today, enterprises are deploying applications on virtualized IT infrastructures and clouds. The values of these new technologies include flexibility, scalability and mobility.

Unfortunately, Business Continuity and Disaster Recovery offerings have not kept up with the pace of innovation. To date there have been no recovery methods that are built for scale and reliability and also work seamlessly in the modern, virtualized data center. With hypervisor-based replication, all that changes.

Zerto Virtual Replication is a software-only solution, installing seamlessly into any existing environment in under 2 hours. Zerto supports any storage array or storage protocol and even allows a mix of storage technologies at a company's different data centers. The solution has almost no impact on the production environment, and offers near-synchronous, continuous replication.

Our latest version, released in June 2014, Zerto Virtual Replication v3.5 (ZVR), offers enterprises and cloud providers the industry's first hypervisor-based replication product, fully aligned with the needs of virtualized mission-critical applications.

- What tangible impact has your product/solution had on the market and your customers?

Zerto Virtual Manager fundamentally changes how organisations protect virtualised applications, making BC/DR simple and cost-effective.

Delivering a true BC/DR solution in virtualised environment has proven tricky simply because few of the legacy solutions are designed for virtualisation but are instead repurposed with compromises to fit the challenge. Zerto's Hypervisor-Based Replication technology abstracts replication from the storage layer to obviate any need for additional hardware or software components to complete the replication process. Being built specifically within the virtualized infrastructure means that ZVR offers DR that is flexible, scalable and granular - replicating even specific VMs - while still retaining all of the features of an enterprise-class DR product. In one case, a customer of Zerto Virtual Replication, HAPO Community Credit Union (HAPO), located in Southeast Washington in the US, began to modernize their data center back in 2008 and implemented virtualization in order to quickly provision resources to meet business needs. However, to ensure the availability of their data and applications, they were using a disaster recovery solution that required costly 1 to 1 duplication of their infrastructure to a secondary location. Highly inefficient!

By switching to Zerto Virtual Replication, HAPO reduced their storage hardware by 43%, and eliminated the need to purchase additional storage for the foreseeable future, helping them reduce costs. At the same time, the company's replication and recovery performance was greatly improved, with recovery point objectives (RPO) of just seconds and recovery time objective (RTO) of 5 minutes. These are measurable increases that came from virtualizing both their data center and their disaster recovery solution.

- What are the major differentiators between your product/solution and those of your primary competitors?

ZVR offers an innovative solution to the existing flawed alternatives offered by the three most common replication strategies:

Array-based Replication: Insufficient Granularity

Array-based replication products are provided by the storage vendors and deployed as modules inside the storage array. Examples include EMC SRDF and NetApp SnapMirror. As such, they are single-vendor solutions, compatible only with the specific storage solution already in use. Currently the most popular replication method in use in organizations, array-based replication does not have the granularity that is needed in a virtual environment. For example, mapping between virtual disks and array volumes is complex and constantly changing, creating management challenges and additional storage overhead. Often,

multiple virtual machines reside on a single array volume, or logical unit. An array-based solution will replicate the entire volume even if only one virtual machine in the volume needs to be replicated. This underutilizes the storage and results in what is known as “storage sprawl.”

Guest/OS-based Replication: Impossible to Scale

Guest/OS-based replication solutions comprise software components that have to be installed on each individual physical and virtual server. Such solutions include Double-Take from Vision Solutions and Veritas Volume Replicator from Symantec. Although much more portable than array-based solutions and typically simpler to manage (because of their small scale), guest/OS-based replication solutions are not fit for enterprises. A primary reason is a need to install a module on every server that limits scalability and makes it impossible to implement and manage in high-scale enterprise environments. Also, since it is designed to replicate only single servers, a guest/OS-based solution is incapable of protecting full multi-server enterprise applications.

Appliance-based Replication: More Moving Parts

Appliance-based replication solutions – the primary current exponent of which is EMC RecoverPoint – are similar to array-based solutions in that they are hardware-based and specific to a single platform. The main difference is that the replication code runs on an external, physical appliance instead of inside the storage arrays themselves. This gives it an advantage over array-based solutions in that it is more flexible and does not consume array resources. When it comes to protecting virtual environments, however, appliance-based solutions suffer from the same disadvantages as the array-based products. Plus they replicate physical entities rather than virtual entities. Their focus, therefore, is the logical unit rather than the virtual machine. This lack of granularity conflicts with the requirements and promise of virtualization. Appliances also add another vulnerable physical “moving part” into a software defined stack.

In summary, Zerto’s hypervisor-based replication technology is the first and only solution that delivers tier one, enterprise-class, virtual replication and BC/DR capabilities for the modern data center and the cloud without the legacy compromises.

Why nominee should win

- Zerto reduces hardware costs as a software-only and hardware-agnostic platform, so customers can replicate from any type of storage to any type of storage.

- Zerto reduces complexity and streamlines IT operations by integrating seamlessly with vSphere vCenter and automating the entire failover and failback process, including creation of all the VMs, reconfiguring IP addresses and executing custom scripts.
- Zerto is capable of protecting mission-critical applications and not just data. This is achieved by Zerto's Virtual Protection Groups that protect from logical errors and allow for frequent testing to ensure you can recover when needed.