

vReplicator™

VM replication solution that enables disaster recovery and business continuity

vReplicator enables organizations to meet shorter recovery time objectives (RTO) and recovery point objectives (RPO) for critical applications to support business continuity objectives.

vReplicator is a virtual machine (VM) replication solution that enables disaster recovery and business continuity by helping organizations meet recovery time objectives (RTO) and recovery point objectives (RPO) while offering a low total cost of ownership. With vReplicator, administrators can meet shorter RTOs and RPOs for critical applications to support business continuity objectives through an Advanced Replication Engine. Patent-Pending Active Block Mapping (ABM) technology and Change Block Tracking (CBT) optimize the data transferred by only replicating changed blocks of data and not unnecessary white space. Organizations can use vReplicator to reduce the performance impact on production systems through Asynchronous Data Transfer regardless of where the target disaster recovery site is located. And unlike array-based solutions, vReplicator provides replication to all VMs at a low total cost of ownership (TCO).

Replication Optimization Engine

vReplicator v3.0 including an improved replication engine, that provides Change Block Tracking, Active Block Mapping, the ability to undo failed replication passes, and automatic identification and resolution of previously failed replication pass. This enables faster replication times, improved recovery point objectives, and greater reliability.

Change Block Tracking

Utilizes change block tracking (CBT) capabilities in vSphere to transfer only those data blocks that have changed. By only transferring those data blocks that have changed, vReplicator provides dramatically faster replications with lower network bandwidth requirements.

Active Block Mapping (ABM)

Eliminates scanning/transfer of non-active data blocks (whitespace) to enable faster replications with lower network bandwidth requirements.

vSphere and Thin Provisioned Disk Support

Supports replication of thin-provisioned disks. Enterprises can deploy thin-provisioned disks on production systems while protecting data for DR scenarios.

White Space Detection

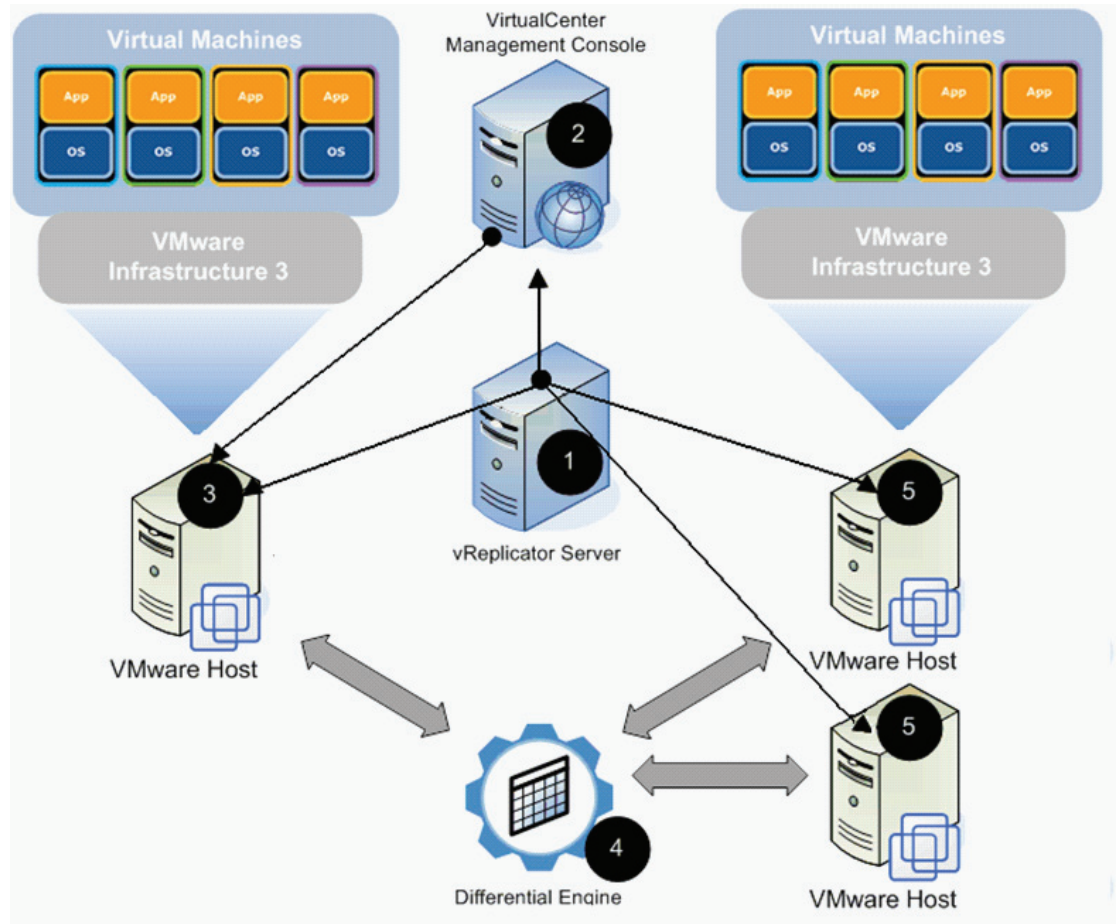
Independent of the patent-pending Active Block Mapping (ABM), vReplicator detects and ignores empty blocks. The initial replication pass for a VM with a large amount of empty space should result in a smaller replications than with previous versions. vReplicator dramatically faster replications by performing white space detection, optimizing the replication process.



vReplicator offers integration with VirtualCenter and is VMotion and DRS aware. This solution can replicate selected VMs over the LAN/WAN to dissimilar hardware and offers both Differential and Hybrid replication.

How vReplicator Works

The following diagram depicts a typical replication job and replication pass with vReplicator.



Step 1: vReplicator is installed centrally and communicates directly with the hosts or VirtualCenter for replication. Replication job information is sent through the communication layer to the respective hosts for recurring replication passes. The Setup Wizard helps create jobs based on frequency, replication methods, or destination on a per virtual machine basis. Integration with VirtualCenter facilitates setting up and managing new or existing jobs. VirtualCenter integration is needed to follow virtual machines to their new source hosts after a VMware Distributed Resource Scheduler (DRS) or VMotion event.

Step 2: Once a job has been set up in the Setup Wizard, the information is sent to the source host for replication. This information is recorded at the vReplicator server and the job is scheduled to execute on the defined interval set in the Job Wizard.

Step 3: During the replication pass, the differential engine will look for block-level changes to be sent to the destination and applied to the VMDK until the next replication pass.

Step 4: vReplicator reviews what type of replication (Differential or Hybrid) will be performed. Once the replication is complete, a success message is sent to the vReplicator server and a new pass will initiate at the next scheduled interval.

Step 5: vReplicator can submit several types of replications to multiple destination host to specific target virtual machine's VMDK file. In addition, vReplicator has the ability to skip certain disks within a VM.



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