



# Full System Protection

CA ARCserve® Replication and High Availability is a solution based on asynchronous real-time replication and automated application switchover and switchback to provide cost-effective business continuity for virtualized environments on Windows servers. CA ARCserve High Availability lets you replicate data to a local or remote server, making it possible to recover that data due to server crash or site disaster.

## OVERVIEW

Full System HA protects any server, regardless of application type.

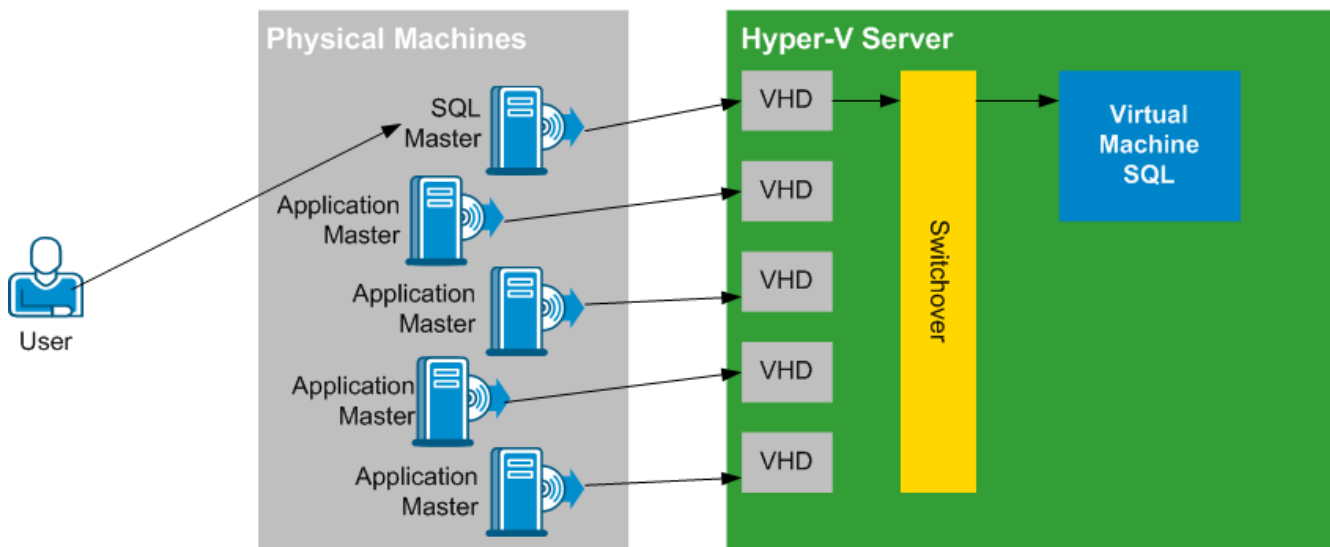
Full System HA is application-independent and lets you transfer an entire physical machine, including all system status information, to a virtualized machine running on Microsoft Hyper-V, VMware or Citrix Xen hypervisors

## BENEFITS

- Application-independent
- Protects the entire physical machine
- Many to one
- Customization of the resources used on the hypervisor server

## How Full System High Availability Works

The Full System HA protects any server, regardless of application type. Full System HA is application-independent and lets you transfer an entire physical machine (Master), including all system status information, to a virtualized (Hyper-V enabled) Replica that supports the guest operating system of the active server. Data is replicated to a virtual hard drive (VHD) file stored on the VM. At switchover, the physical Master is disabled, a virtual machine is created on the Hyper-V server and the VHD file is mounted as a disk. The new VM is booted and integration services are deployed.



## Synchronization and Replication

Synchronization is performed at Volume level by reading data direct from the volume including the disk layout information. The data stream is serialized and sent over to the Virtual server where it's injected to the VHD files representing the volume. Replication is performed at file level including all files on the volume as well as the files in the System folders.

## Full System HA Switchover

In the case of a failure of a production server a switch over to the virtual machine will be initiated, at this point the following tasks will be performed on the Hyper-V Server:

- Configure the VM with specified values
- Connect the virtual disk images
- Configure the network connections
- Start the VM and install the integration services

## Customization of the Virtual Replica

During the implementation it's possible to customize features like No of CPU cores, available RAM and the logical name of the Replica.

## Frequently Asked Questions

**Q: Why is the synchronization done at volume level?**

A: Volume level synchronization has proven to achieve better performance than file level.

**Q: There is a feature in Replication and High Availability called Host maintenance, is that supported with Full system HA?**

A: No

**Q: Apart from Hyper-V is other virtualization architectures supported?**

A: No, currently only Hyper-V is supported.

**Q: How is non system critical files managed?**

A: Files that is not critical to the system such as pagefile.sys is automatically excluded.

## Summary

CA ARCserve Replication and High Availability Full system High Availability provides the following features:

- Application independent HA.
- Assured Recovery
- Customization of the Virtual Replica server properties
- A true many to one capability

For more information about the CA ARCserve Family of products, please visit [arcserve.com/products](http://arcserve.com/products) or test drive our products at [arcserve.com/software-trials](http://arcserve.com/software-trials).