

# CLOUD-BASED DISASTER RECOVERY

## DataGardens SafeHaven for Public Cloud Recovery

*Disaster protection is vital but provisioning a dedicated recovery site is too expensive*

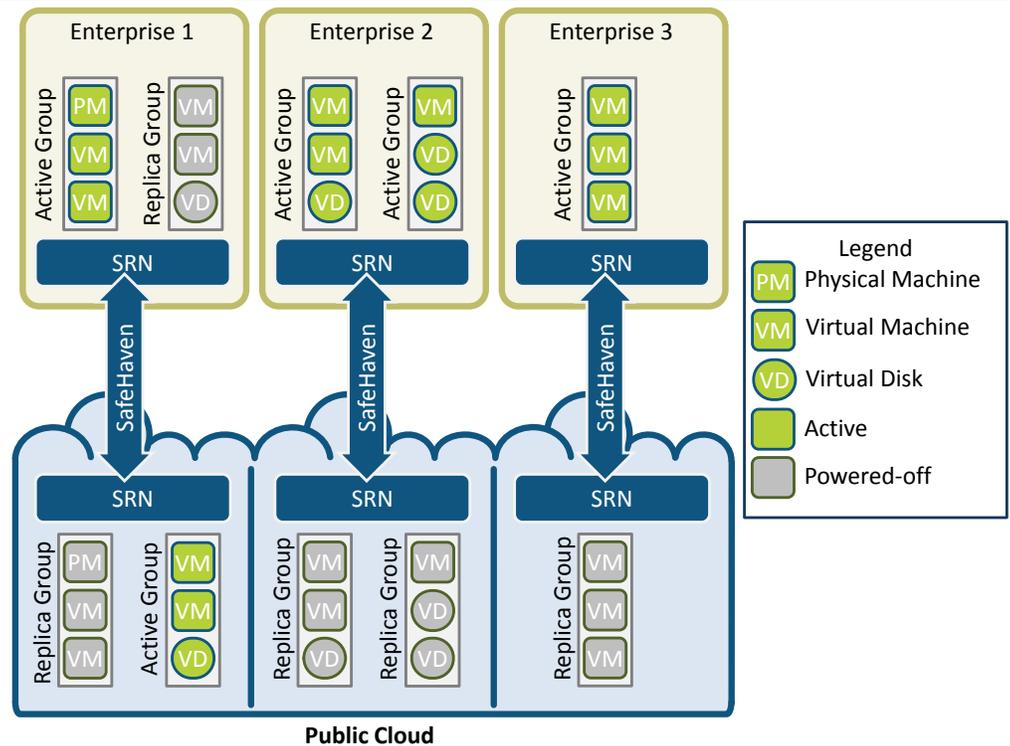
### CHALLENGE

In an era when most organizations simply cannot function without access to their core IT systems, most CIOs recognize the need for disaster protection. Yet the challenges and costs of conventional disaster recovery can be staggering. Ultimately, the problem is that a single organization must bear the entire capital and operating costs of IT systems in a dedicated recovery site. Worse, these systems remain unused except in cases of disaster.

### THE DATAGARDENS SOLUTION

DataGardens SafeHaven® helps change the disaster recovery paradigm. A business can protect its own internal data center with a replica Virtual Data Center (VDC) in a selected public cloud. The costs of infrastructure for the recovery site are amortized across the cloud subscriber base, so the business benefits from a much lower cost structure than with conventional disaster recovery. Also, the replica servers in the cloud are only activated in the case of disaster, so operating costs are even further reduced. Most important, SafeHaven is easy to configure, test, and manage so the business can easily get the level of protection it really needs while relying on the special expertise of the cloud provider should problems arise.

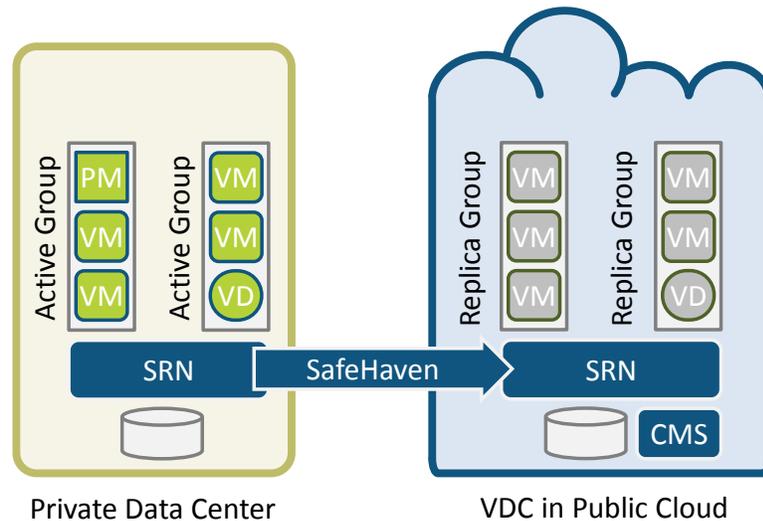
*SafeHaven protects enterprise data centers with virtual data centers in select public clouds*



### Public Cloud Recovery-as-a-Service

## HOW IT WORKS

Suppose a company deploys SafeHaven® to provide disaster protection for its private data center with a VDC in a multi-tenant cloud. The high-level network architecture is shown in the figure below.



### Sample deployment of SafeHaven for Public Cloud Recovery

The company can protect both physical and virtual servers along with their associated data drives. When protected servers are physical, they are protected by virtual replicas within the cloud VDC. Also, when protected systems have inter-dependencies and must be recovered at single instant in time and with a specified recovery plan, they can be configured into “Protection Groups”. Every active Protection Group within the production site has a remote replica within the cloud VDC. The VMs within the replica Protection Groups are kept “parked” under normal operating conditions—which means that they are powered off with only minimal reserved memory and CPU.

A DataGardens virtual appliance called a SafeHaven Replication Node (SRN) receives mirrored updates from active servers and data drives in the production site and continuously transmits these updates to a peer SRN within the cloud VDC. The SRNs maintain up to 2048 scrolling checkpoints so that in cases of system or data corruption, administrators can roll the Protection Group back to a selected instant in time.

Another DataGardens virtual appliance called the “Central Management Server” (CMS) resides within the cloud VDC. It monitors for failure conditions, sends alerts to administrators, and relays commands to the SRNs. The CMS acts like a command and control station for the company’s entire disaster protection environment. If desired, the company can use a single CMS to protect up to 64 sites while deploying multiple SRNs per protected site. All sites can have active Protection Groups and can share their disaster protection responsibilities.

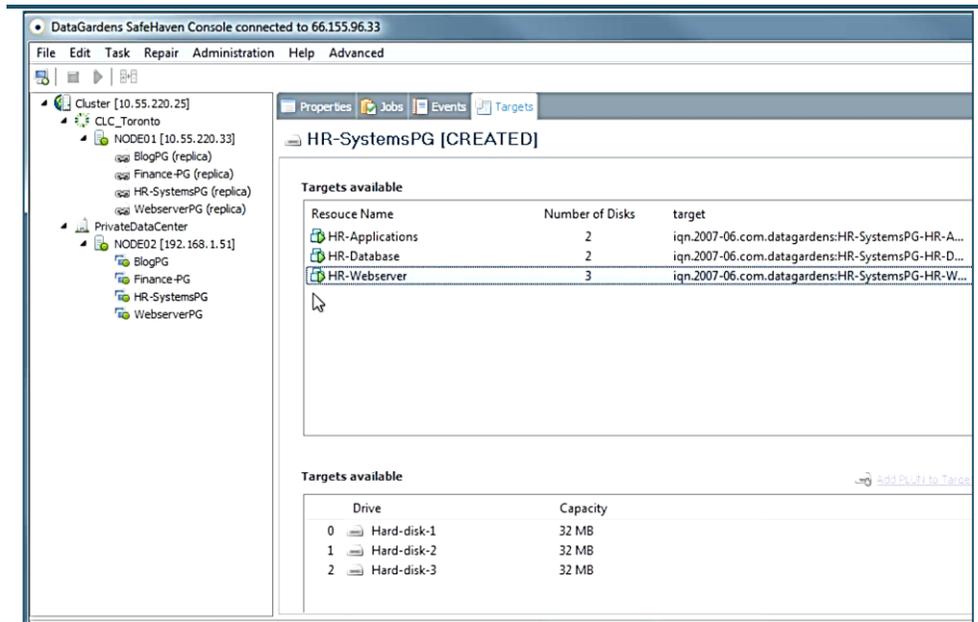
*The simple architecture provides comprehensive enterprise-class disaster protection . . .*

*. . . with scalable replication and recovery orchestration*

## PUBLIC CLOUD RECOVERY SERVICES

If a disaster occurs in its private data center, the company can recover protected IT systems in its VDC within the cloud using the SafeHaven Console (see Figure 3).

*Point-and-click recovery through a simple management console . . .*



### SafeHaven® Console

When a failure condition occurs, SafeHaven issues e-mail alerts to selected administrators. Recovery can be fully automated or achieved through simple point-and-click commands. Further, recovery takes just a few minutes to complete and, since protected IT systems are being constantly replicated into the cloud VDC, little to no loss of data occurs. Finally, the company's DNS can be pre-configured to redirect clients automatically during site outages so little service interruption occurs.

Recovery services include:

- Migration into the cloud VDC without data loss and with minimal service interruption,
- Failover to the cloud within a few minutes and with minimal data loss,
- Failback from the cloud VDC to the original site without data loss,
- Rollback to any one of 2048 checkpoints, and
- Non-disruptive failover testing with recovery audits.

### SALES ENQUIRIES: [sales@datagardens.com](mailto:sales@datagardens.com)

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