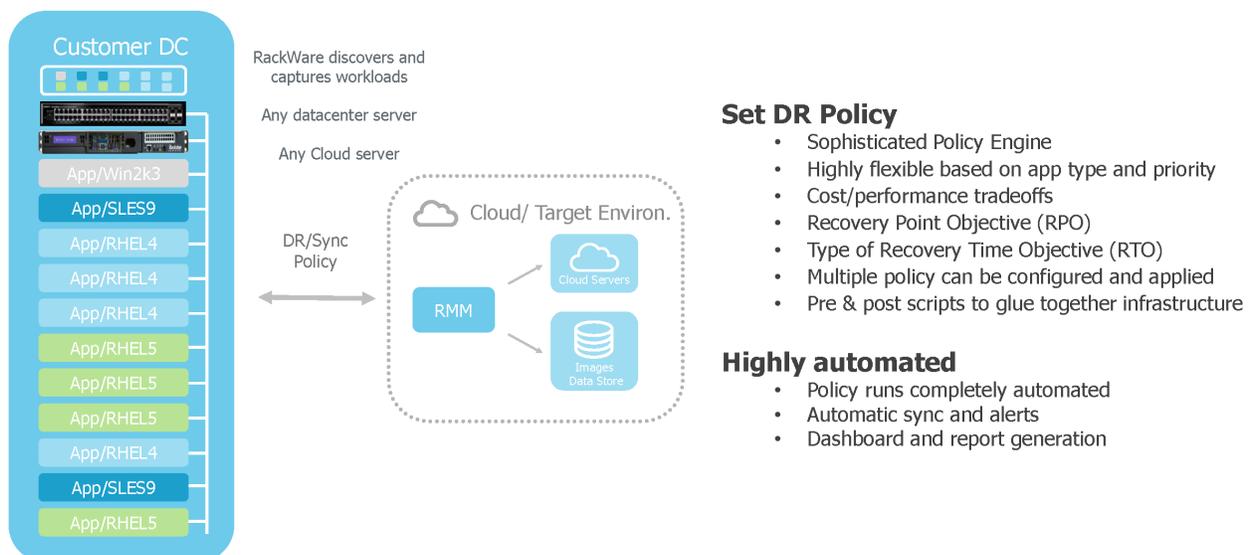


Overview

Business Continuity via Disaster Recovery is an essential element of IT and takes on many forms. Not too long ago, the high end consisted of duplicate hardware sitting idle in a remote geography with only a few critical applications replicating and syncing data on a regular basis. While these systems were capable of providing continuity of operations for a few important applications during outages, they were large, complex, and enormously expensive. Moreover, many applications took weeks or months to recover or were not covered at all. At the other end of the continuum, however, Disaster Recovery is still often little more than conventional backup with no semantics or automation around restoring systems and overall operations. In an outage, businesses are then left with Terabytes of data with no knowledge of how to restore it to applications or servers. Companies risk going out of business while laboring to restore systems and operations. Compliance regulations and business needs demand a better solution.

The Cloud offers great potential for dramatically improving the economics and recovery time for DR as well as addressing all applications on a priority cost-effective basis. Simply extending existing backup procedures to Cloud based storage may save a few dollars but does not address the major pain points to realize the necessary cost and performance benefits. Additionally, most existing Cloud solutions are little more than a slow, labor-intensive, VM import process from some form of a stale backup. Realizing the benefits with Cloud requires a new approach.

Disaster Recovery: Set Up



A major improvement can be made in DR with a model that comprehensively includes infrastructure, servers, storage, networking, and applications wrapped in a highly automated solution that takes advantage of Cloud features. An architecture that covers both DR and Backup in a single solution brings a huge improvement in overall integration of both these essential elements in any IT environment. Further, converging DR and Backup will maximize Cloud investment by simplifying operations, and minimizing labor.

Disaster Recovery Backup



Cloud to Other Cloud DR

- Other cloud providers open huge opportunity
- Appealing to CIOs as it spreads risk across providers
- Unique capability of RW



DR with Backup

- Reduce number of solutions
- Easier and cheaper to deploy
- Recovery points enable protection and recovery from malware

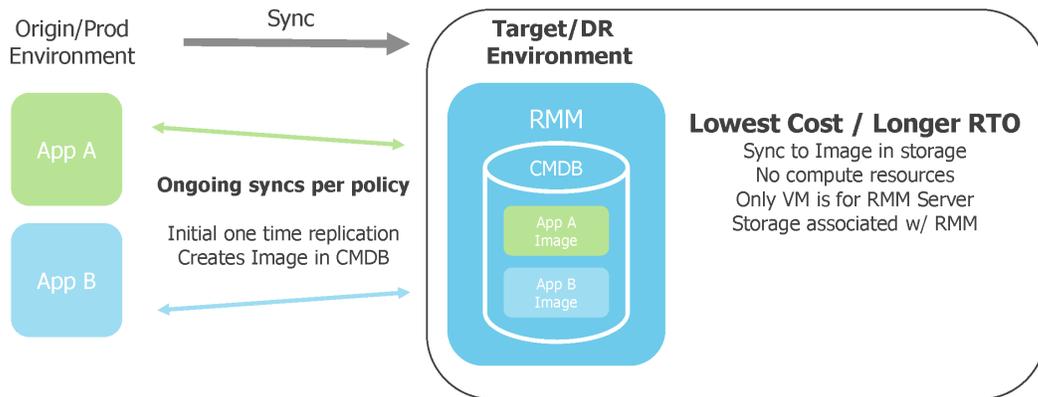


Multiple Options Available

- Optimize cost objectives while meeting RPO and RTO requirements
- High granularity for different application priorities

Clearly, on-premises to Cloud is an essential confluence for converged DR & Backup. But as many IT environments are already Cloud-based, being able to configure Cloud-to-Cloud DR & Backup is now a hard requirement. Indeed, many compliance regulations specify that recovery sites be not only in a different geography but also a different Cloud Provider minimizing risk in any one environment or Provider. Extending this requirement across different Cloud Providers without adding undue complexity significantly lowers, or spreads, risk and can enhance the economies of such a solution. Server/workload mobility must support heterogeneity, being able to move Images among disparate hardware, hypervisors, and Cloud Providers. Platform agnostic mobility is important not only when the computing trigger is shifted to the remote site, but it is also important to support easy mobility back to the origin site to resume normal operations. To complete the ideal solution, beyond mobility, a policy architecture needs to be in place to automate processes and make intelligent decisions about workload operations.

Dynamic Provisioning: Pre DR Event



How RackWare's Converged DR & Backup Solution Works

Backup is a key feature set of the RackWare Converged DR & Backup solution that includes Single File Restore and multiple sets of recovery points to retain point-in-time Images which can protect from Origin server failures, corruption, or malware.

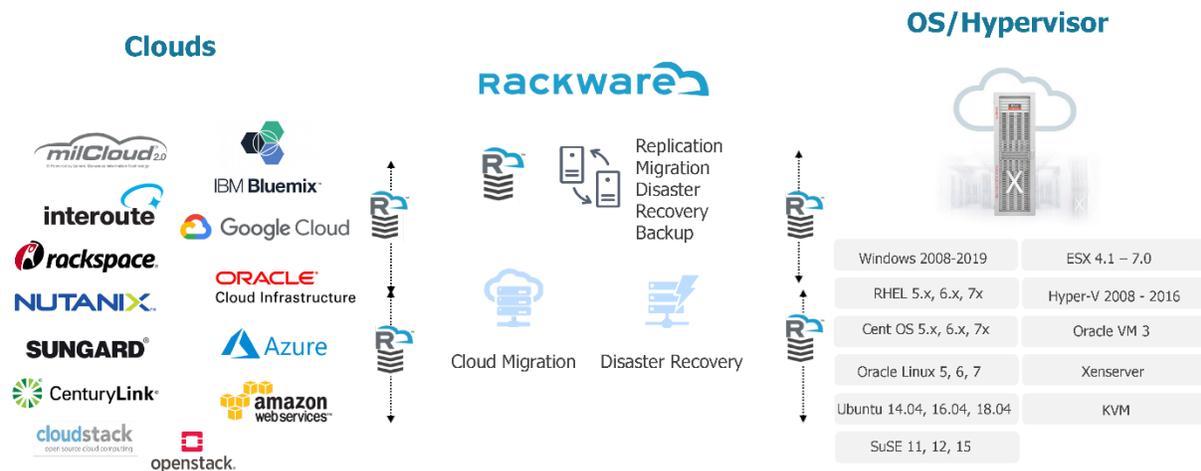
RackWare's innovative converged DR & Backup platform, RMM, provides a comprehensive server and data protection solution that builds on its unique Replication and Sync technology to bring economic Disaster Recovery & Backup to Enterprises. In addition to Replication and Sync, the building blocks of RackWare's DR solution include intelligent provision, storage management, and a comprehensive dashboard to monitor operations. A sophisticated policy engine then glues these features into a simple management platform that can be scaled to necessary levels. Captured Images and Containers from production (origin) instances are replicated and pushed out to a remote Target site. Changes in production Images and Containers are continuously or periodically synchronized with the remote images in a different geography, keeping the original Host Image and the Target image in sync. Human error and labor are minimized or eliminated. In the event of an outage at the Origin site, the up-to-date Image/Container at the Target site can assume operations through RackWare's fail-over mechanism. RackWare's Converged DR & Backup solution realizes all the essential business recovery protection needs at a fraction of the cost compared to other solutions.

Another huge advantage of the RackWare Converged DR & Backup solution is the ability to selectively tune cost with RPO and RTO. The RMM supports Dynamic Provisioning which allows the Origin server to be replicated and synced in storage without the cost of provisioned servers consuming compute costs. If one chooses to optimize for lowest cost, Recovery Time will be slightly longer during a failover event to accommodate the time to provision Target servers and complete the replication process. For a large percentage of servers this is an excellent fit to protect that data with a very low-cost infrastructure. For the highest priority Origin servers requiring optimal recovery time, the DR Target servers can be pre-provisioned to expedite failover, which is simply the time to reboot the server. RMM uniquely provides the ability to match cost to server priority instead of a one size fits all solution.

Summary

RackWare's Converged DR & Backup Solution allows for the replication and sync of physical and virtual Windows and Linux servers, Kubernetes Clusters and Containers to a secure protected environment. Intelligent options are available for low-cost storage-only solutions with automated restoration. Higher performing options provide for hot standby systems for optimal recovery time. A powerful Policy Engine manages and automates data syncs and sequences failover operations. RackWare's converged DR & Backup solution provides comprehensive Enterprise class protection across a huge range of requirements and environments.

RackWare Support Matrix



About RackWare

RackWare brings intelligence and automation to the cloud, providing greater availability for enterprises, greater flexibility for enterprise IT users, and reduced costs for enterprise IT providers. Computing resources—physical, virtual, and cloud machines—can be easily and automatically scaled up or down as demand fluctuates. On average, RackWare customers realize a cost savings of 40 to 50 percent, while getting the highest performance and availability out of their cloud.