

THE POWER OF BEING UNDERSTOOD

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POWERFUL, CLOUD CENTRIC, DISASTER RECOVERY FOR SEAMLESS AND AUTOMATED BUSINESS CONTINUITY



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Today's presenter

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Business Continuity Plan

- Documented and formal arrangements for resuming critical business operations in a timely manner following a disaster or other disruption
 - “Timely” may equal “Immediate”
 - Degraded operations may suffice temporarily
 - Focus is on sustaining the organization
 - Business operations require essential resources
 - Recovery process must be efficient and organized

Lessons From Past Disasters

- The event may impact multiple sites simultaneously.
- Communications may suffer extended outages.
- Full staffing may not be available for the recovery.
- Hotsite demand may exceed available capacity.
- Work in process and vital records may be destroyed.
- Essential transportation may not be available.
- Supply chains may break down.
- Untested provisions are unreliable.

Questions that need to be answered

- Has the organization embraced the importance of a formal disaster recovery plan?
- Are you taking advantage of virtualization, the cloud, or other newer technologies?
- How are you separating and securing faculty and student data and how will this effect backup and storage of data?
- How and where are your systems duplicated?
- Is everything documented and tested?
- Are you living within the parameters of your policies and procedures?

Effectively Planning For Disaster Recovery

- Your Disaster Recovery strategy can be broken down into the following steps
 - Understand your current technology posture
 - Identify current recoverability for each system, application and data set
 - Establish RTO/RPO's for systems, applications and data sets
 - Architect a Disaster Recovery solution that meets your RTO / RPO objectives
 - Test your Disaster Recovery solution and validate functionality



Business Impact Analysis— Recovery Time Objective (RTO)

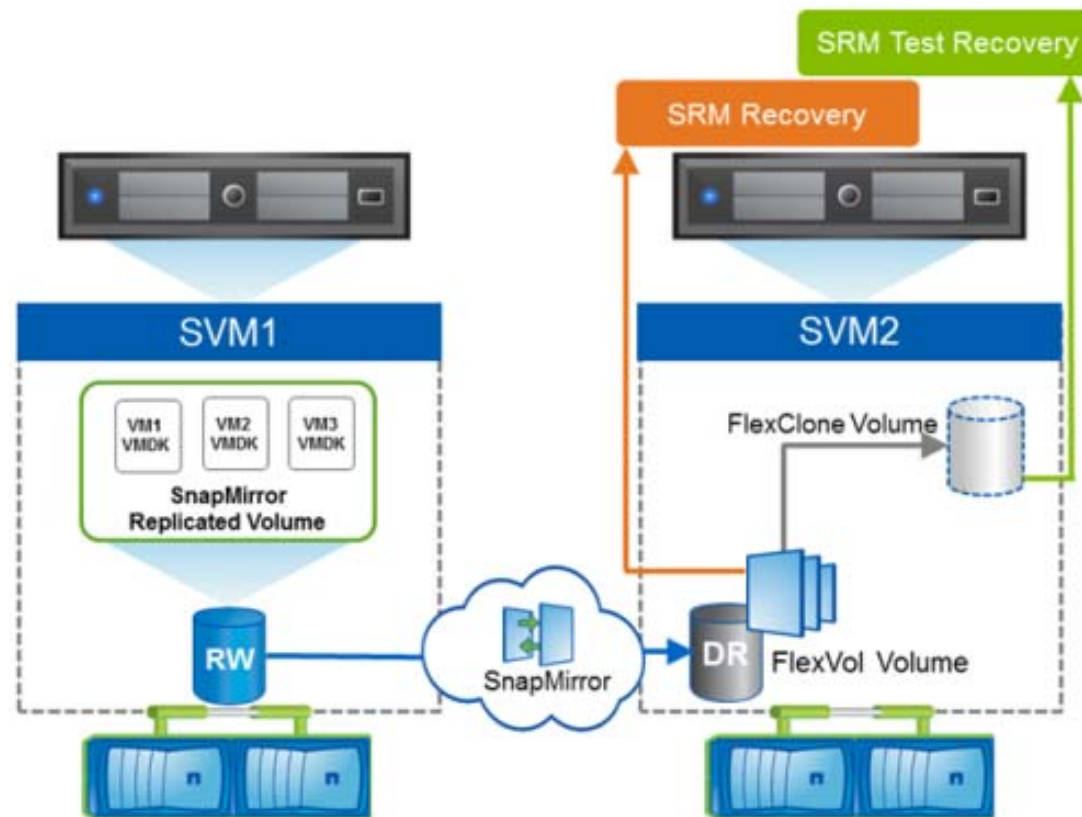


How Do I Manage My RTO Cost Effectively?

- Consider leveraging cloud based backup and recovery options.
- There are a wide variety of options that span most needs and budgets
- Careful review of options and selection of the appropriate solution will be key to meeting organizational goals and adherence to standing BCP / DR policies

What Do Cloud BCP / DR Options Look Like

- Site To Site Duplication Of Data And Systems



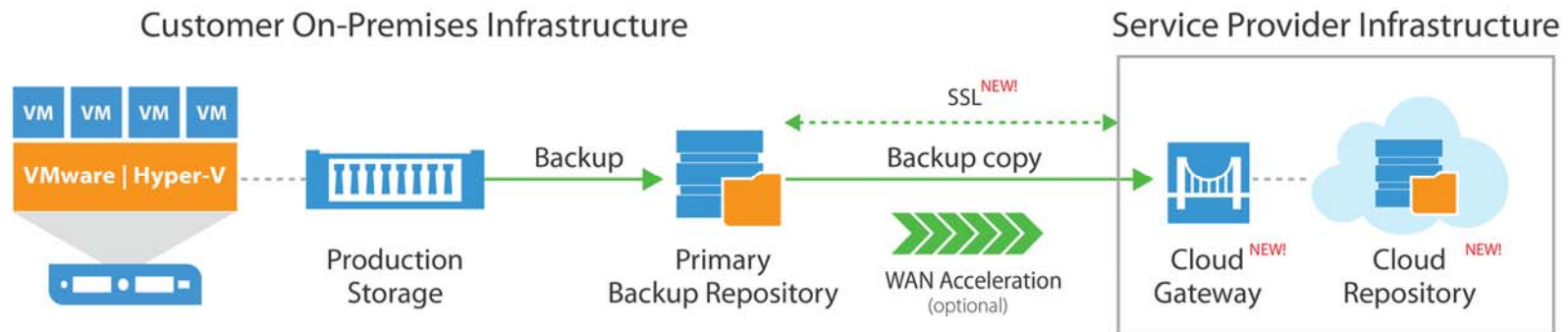
What Do Cloud BCP / DR Options Look Like

- Site To Site Duplication Of Data And Systems
 - Strengths
 - You own the hardware and software assets
 - You control the security of the solution
 - May allow for near real time backup and recovery of data and systems provided the network and systems are scaled appropriately and growth is adequately projected
 - Weaknesses
 - You are responsible for maintaining the solution
 - High cost of entry & refresh
 - A network outage, virus outbreak, or hardware fault may break the entire solution and the data will be unavailable until you re-establish any broken links
 - Will address disaster recovery concerns, but an alternate solution will be required for archival backup duties



What Do Cloud BCP / DR Options Look Like

- Site To Cloud Backup (Software Based)

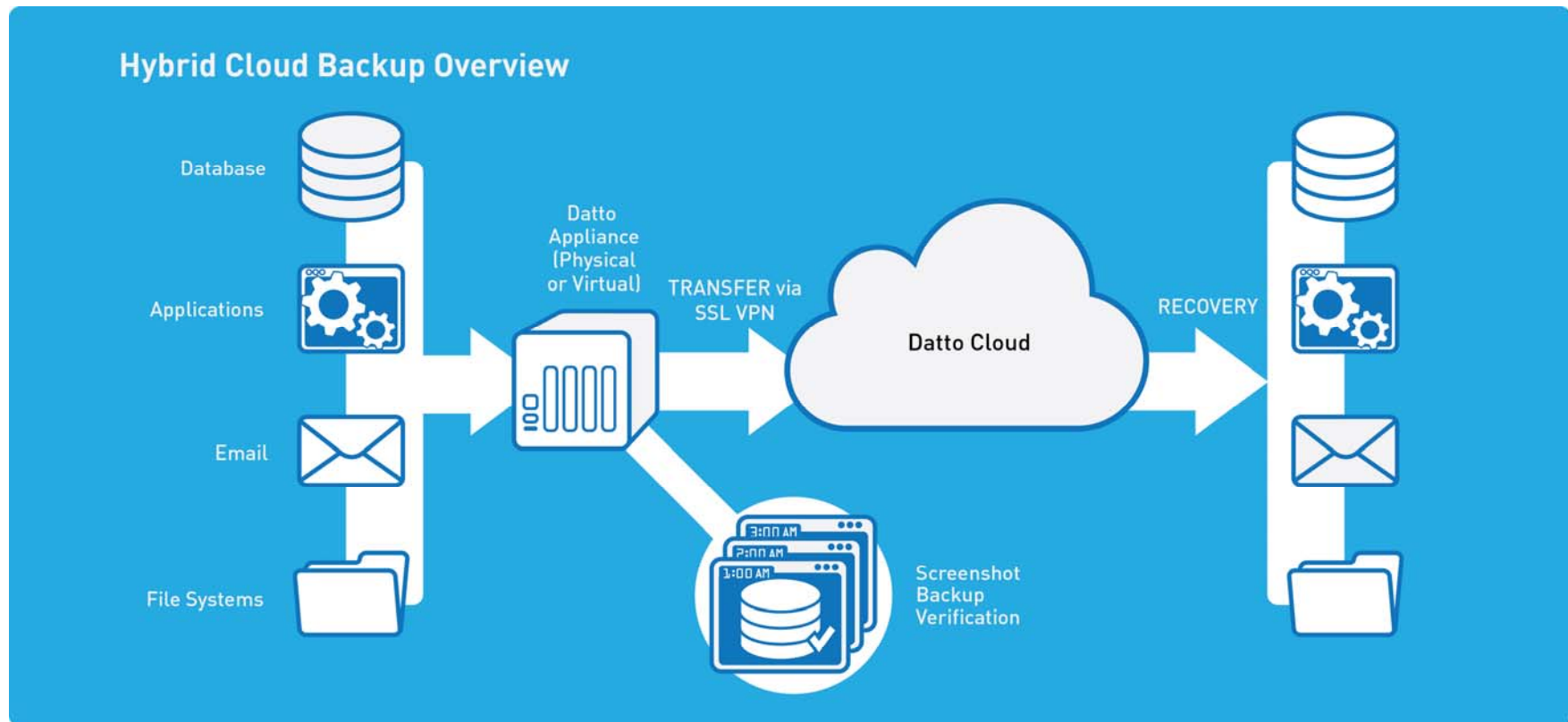


What Do Cloud BCP / DR Options Look Like

- Site To Cloud Backup (Software Based)
 - Strengths
 - You own the on site facet of the backup and control the security of the backup via SSL
 - Has a local backup repository that may be used for speedy recovery of damaged systems and files
 - Low cloud storage costs, and SLA's that control the cloud provider to ensure security and uptime
 - May use a host of different cloud providers for flexible provisioning
 - Depending on the storage provider, virtual DR may be established in the cloud quickly and will enable remote access to critical systems from anywhere via remote sessions.
 - Covers both DR and archival backup needs in one solution
 - Weaknesses
 - Virtual recovery is typically not instantly available and may take some time to establish
 - Staff will have to be directed as to how to access DR systems virtually, advanced training and procedure review will be beneficial
 - Testing , training, and verification of operability are key to ensuring a fast turnaround in the event of a failure

What Do Cloud BCP / DR Options Look Like

- Site To Cloud Backup (Appliance Based)



What Do Cloud BCP / DR Options Look Like

- Site To Cloud Backup (Appliance Based)

- Strengths

- One single platform for backup, fast local recovery, offsite data storage, and offsite DR
 - Capable of backing up and recovery almost any system
 - Low cloud backup costs, and SLA's that control the cloud provider to ensure security and uptime
 - Has a highly flexible cloud backup model, allowing for variable retention all the way up to infinite retention

- Weaknesses

- Moderate buy in cost
 - All on site functions are based in one single appliance, so a failure of that one appliance may interrupt backups and DR capabilities for a short period in the event of a failure.



Considerations In Selecting A Solution

- **Disaster Impact**
 - What impact will a disaster have on our organization?
 - How long can we afford to be without critical business systems before they impact faculty and students?
- **Existing Systems**
 - What do we have in house today, and does it serve our needs and allow for expansion of our DR capabilities?
- **Staff**
 - Does our staff have the cycles to fully engage on disaster recovery?
 - Does our staff have the skills to fully configure and manage disaster recovery
- **Investment**
 - What is our current IT budget?
 - Which style of disaster recovery meets our RTO / RPO in the most cost effective manner?

Testing and Validation Is Critical For Success

- Testing the Disaster Recovery infrastructure is a critical component to the overall BCP Plan
- It validates that the systems, application and data which have been identified important to be recovered, can actually be recovered in the desired time, with the specific RPO specified
- Yearly testing is suggested for most businesses, and many times this is an outsourced function as it helps maintain independence of the IT Department
- Document the processes
- Tabletop test for departments





QUESTIONS AND ANSWERS?

Additional Information

- <http://www.RSMUS.com/>
- <http://infrastructuretechnologypros.com/>
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Thank You!



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