

### **AZURE SITE RECOVERY**

- Azure Site recovery is Business Continuity and Disaster Recovery solution
- It Replicate Azure VM from a primary region to another region



 When an outage occurs at your primary region, you fail over to secondary region

After the primary region is running again, you can fail back to it

- Failover isn't automatic. You initiate failover from portal
- When you failover, Site Recovery automatically creates VM in secondary region



### Create a recovery service vault in secondary region

#### **FAILOVER:-**

- Start replication from primary to secondary
- Perform failover from primary to secondary
- Perform Commit

#### **FAILBACK:-**

- Re protect from secondary to primary
- Perform failover from secondary to primary
- Perform Commit



### **Region support**

Azure Site Recovery allows you to perform global disaster recovery. You can replicate and recover VMs between any two Azure regions in the world. If you have concerns around data sovereignty, you may choose to limit replication within your specific geographic cluster. The various geographic clusters are as follows:

Geographic cluster	Azure regions
America	Canada East, Canada Central, South Central US, West Central US, East US, East US 2, West US 2, West US 2, West US 3, Central US, North Central US
Europe	UK West, UK South, North Europe, West Europe, South Africa West, South Africa North, Norway East, France Central, Switzerland North, Germany West Central, UAE North, UAE Central (UAE is treated as part of the Europe geo cluster)
Asia	South India, Central India, West India, Southeast Asia, East Asia, Japan East, Japan West, Korea Central, Korea South
JIO	JIO India West
Australia	Australia East, Australia Southeast, Australia Central, Australia Central 2
Azure Government	US GOV Virginia, US GOV Iowa, US GOV Arizona, US GOV Texas, US DOD East, US DOD Central
Germany	Germany Central, Germany Northeast
China	China East, China North, China North2, China East2
Brazil	Brazil South
Restricted Regions reserved for in- country disaster recovery	Switzerland West reserved for Switzerland North, France South reserved for France Central, Norway West for Norway East customers, JIO India Central for JIO India West customers, Brazil Southeast for Brazil South customers, South Africa West for South Africa North customers, Germany North for Germany West Central customers.



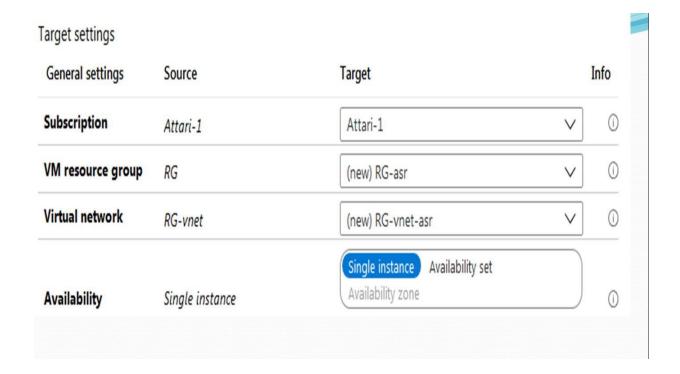
#### **HOW ASR WORKS**

- The Recovery Vault has to be in Target Region
- VM and Cache Storage Account must in Source Region
- Continuous replication begins for the VM, Disk writes are immediately transferred to the cache storage account in the source location and then sent to Target Region Replica managed disk



- Snapshot of Replica Managed Disk are taken and Recovery Points are created
- At time of failover you chose a Recovery point
- Then OS/Data Disk and VM are created in Target Region using that Recovery Point

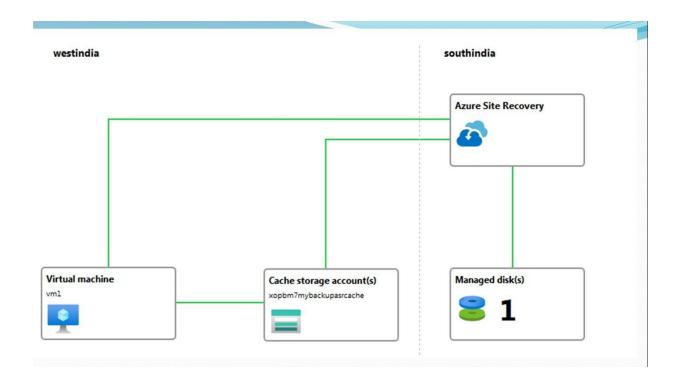




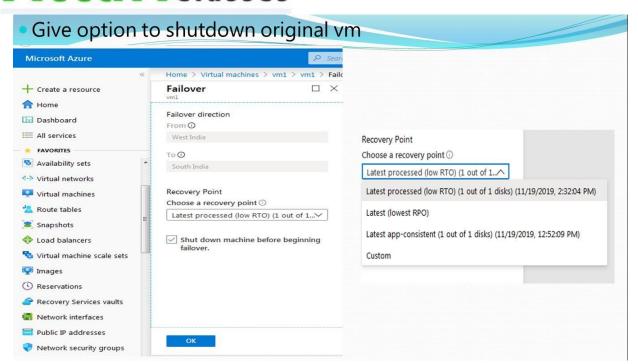


Storage settings [-] Hide details (new) xopbm7mybackupasrcache [Standard\_LRS] Cache storage account 0 Source managed disk Replica managed disk Replica managed di... [Standard HDD] vm1\_OsDisk\_1\_3f39a769... (new) vm1\_OsDisk\_1\_3f39a7697cc64bec... Standard HDD 0 Replication settings [-] Hide details Vault subscription Attari-1 1 Recovery services vault mybackup 0 AzureBackupRG\_centralus\_1 Vault resource group 0 Replication policy (new) 24-hour-retention-policy 0

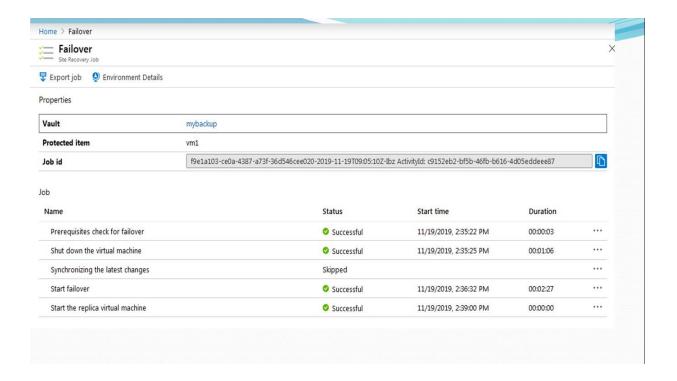




#### Start failover from vm or vault Home > Virtual machines > vm1 > vm1 vm1 Essentials Overview Health and status Failover readiness General Latest recovery points Last successful Test III Properties Click above to see the latest Never performed Failover Protected Status recovery points. Compute and Network successfully 4 mins [As on 11/19/2019, RPO Configuration issues O No issues B Disks 11:25:12 AM] Errors(0) Open in new page Events - Last 72 hours(0) Open in new page No errors No events

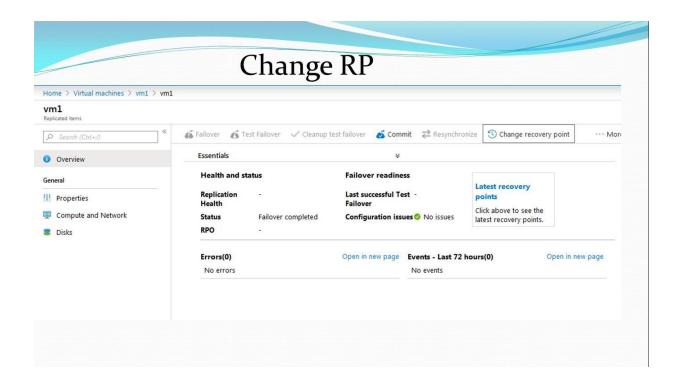




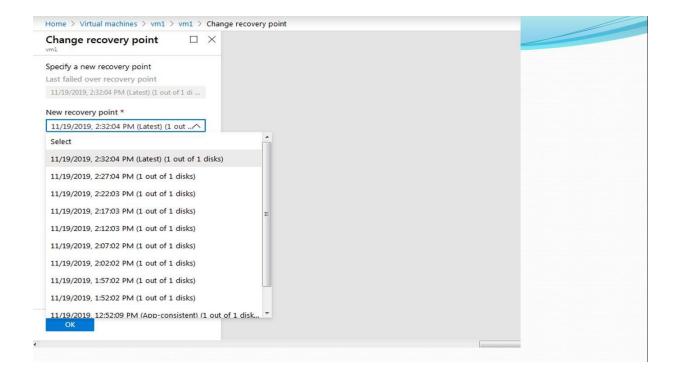


Failover Co	ompieteu					
Name ↑↓	Type ↑↓	Status	Resource group ↑↓	Public IP address	Private IP address	Location 1
vm1	Virtual machine	Running	rg-asr	104.211.201.200	10.0.0.4	South India
vm1	Virtual machine	Stopped (deallocated)	rg		10.0.0.4	West India

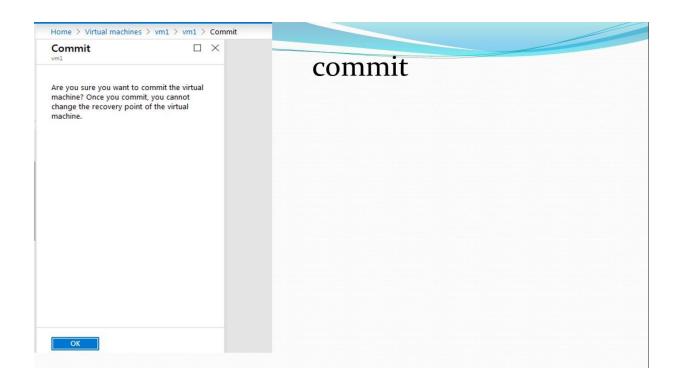




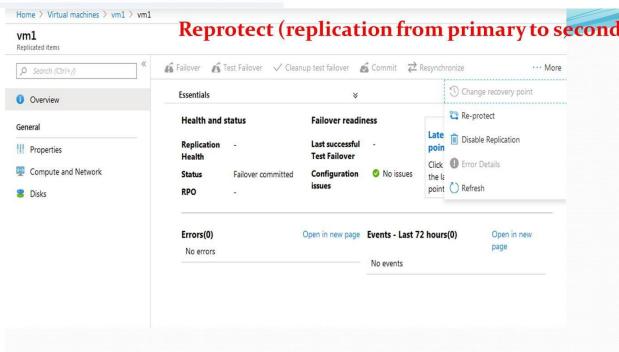




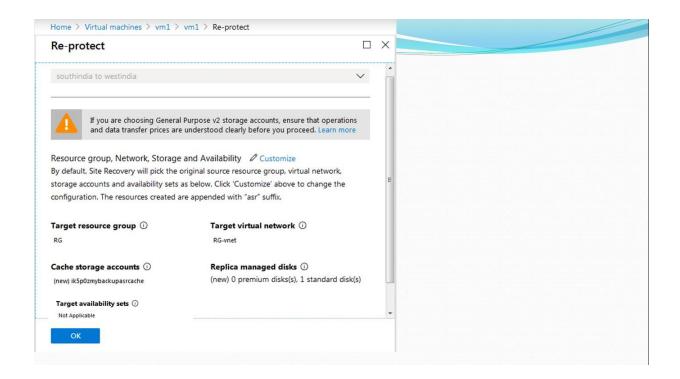




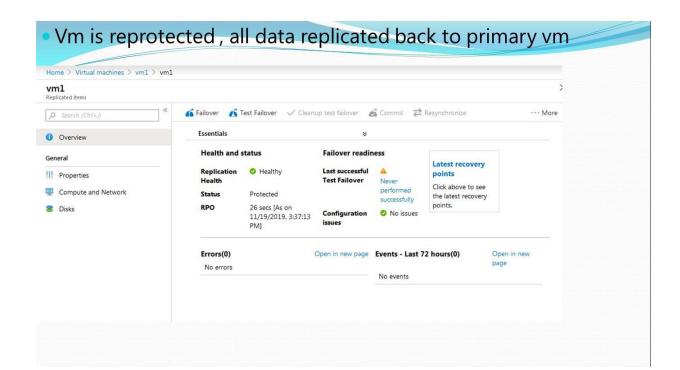




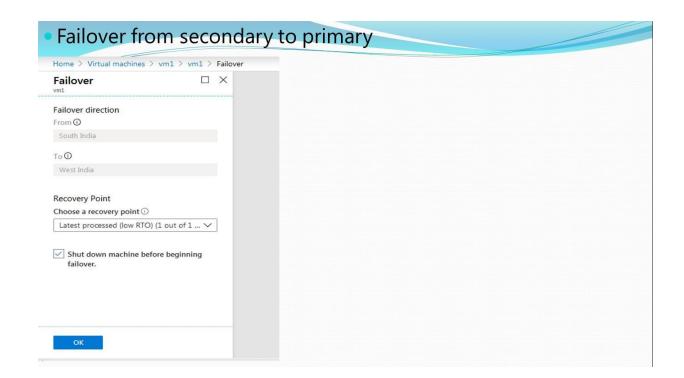














In few minutes we can see vm back in primary, all changes in secpondary vm are see in this primary vm

