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| **Scenario** | **Array Behavior** | **VMware HA Behavior** |
| Single storage node single path failure | Node path failover occurs. All volumes remain connected. All ESXi sessions remain active. | No impact observed |
| ESXi Single storage path failure | No impact on volume availability. ESXi storage path fails over to the alternative path. All sessions remain active. | No impact observed |
| Site-1 Single Storage node failure | Volume availability remains unaffected. ESXi storage sessions affected by node failure, failover to surviving nodes. After failed node comes back online, all affected volumes resync automatically. Quorum is maintained. | No impact observed |
| Site-2 Single Storage node failure | Volume availability remains unaffected. ESXi storage sessions affected by node failure, failover to surviving nodes. After failed node comes back online, all affected volumes resync automatically. Quorum is maintained. | No impact observed |
| Site-1 All storage node failure | Volume availability remains unaffected. ESXi storage sessions affected by node failure, failover to surviving nodes. After failed node comes back online, all affected volumes resync automatically. Quorum is maintained. | No impact observed |
| Site-2 All storage node failure | Volume availability remains unaffected. ESXi storage sessions affected by node failure, failover to surviving nodes. After failed node comes back online, all affected volumes resync automatically. Quorum is maintained. | No impact observed |
| Quorum Manager Failure | No impact on volume availability. All sessions remain active. | No impact observed |
| Complete Site 1 failure, including ESXi and storage arrays | Volume availability remains unaffected. Quorum is maintained. Storage sessions to surviving ESXi nodes remain active. After failed node comes back online, all affected volumes resync automatically. | Virtual machines on failed ESXi nodes fail. HA restarts failed virtual machines on ESXi hosts on Site 2. |
| Complete Site 2 failure, including ESXi and storage arrays | Volume availability remains unaffected. Quorum is maintained. Storage sessions to surviving ESXi nodes remain active. After failed node comes back online, all affected volumes resync automatically. | Virtual machines on failed ESXi nodes fail. HA restarts failed virtual machines on ESXi hosts on Site 1. |
| Single ESXi failure (shutdown) | No impact. Array continues to function normally. | Virtual machines on failed ESXi node fail. HA restarts failed virtual machines on surviving ESXi hosts. |
| Multiple ESXi host management network failure | No impact. Array continues to function normally. | No impact. As long is the storage heartbeat is on and virtual machines are accessible, HA does not initiate failover |
| Single Storage Inter-Site Link failure | No impact. Array continues to function normally.**Note**: Redundant Inter-Site Links for storage network are required for this use case. | No Impact observed |
| Site 1 and Site 2 simultaneous failure (shutdown) and restoration | Arrays boot up and resync. All volumes become available. All storage sessions to ESXi hosts are re-established and virtual machines restarted successfully. As a best practice, storage arrays should be powered on first and allow the LUNs to become available before powering on the ESXi hosts. | No Impact observed |
| Management ISL failure | No impact to storage array. Volumes remain available | If the HA host isolation response is set to **Leave Powered On**, virtual machines at each site continue to run as storage heartbeat is still active. Partitioned Hosts on site that does not have a Fault Domain Manager elect a new Master. |
| Storage-Management Server failure | No impact. Array continues to function normally. Array management functions however cannot be performed until the storage management server is up and running again. | No Impact observed |
| vCenter Server failure | No impact. Array continues to function normally | No Impact on HA. However, the DRS rules cannot be applied. |