Server Test Process

Version 1.0

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Document History

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Release date	Version	Change Details	Reviewed by

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SERVER TEST PROCESS

1.0 GENERAL

This document describes the protocol to test the redundancy of the LSL servers

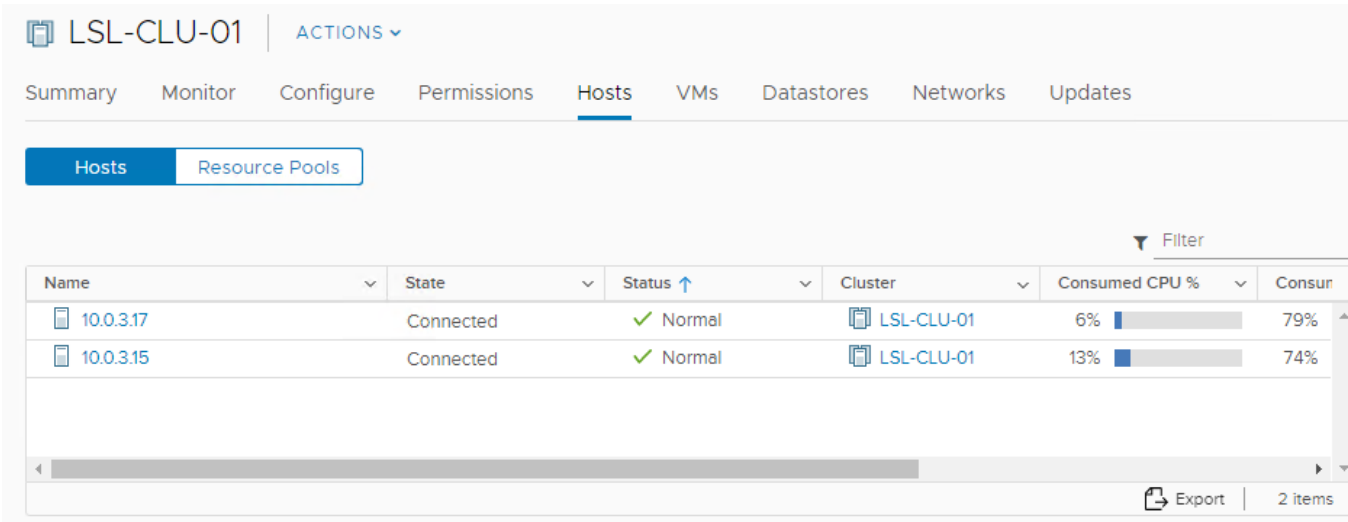
2.0 PURPOSE

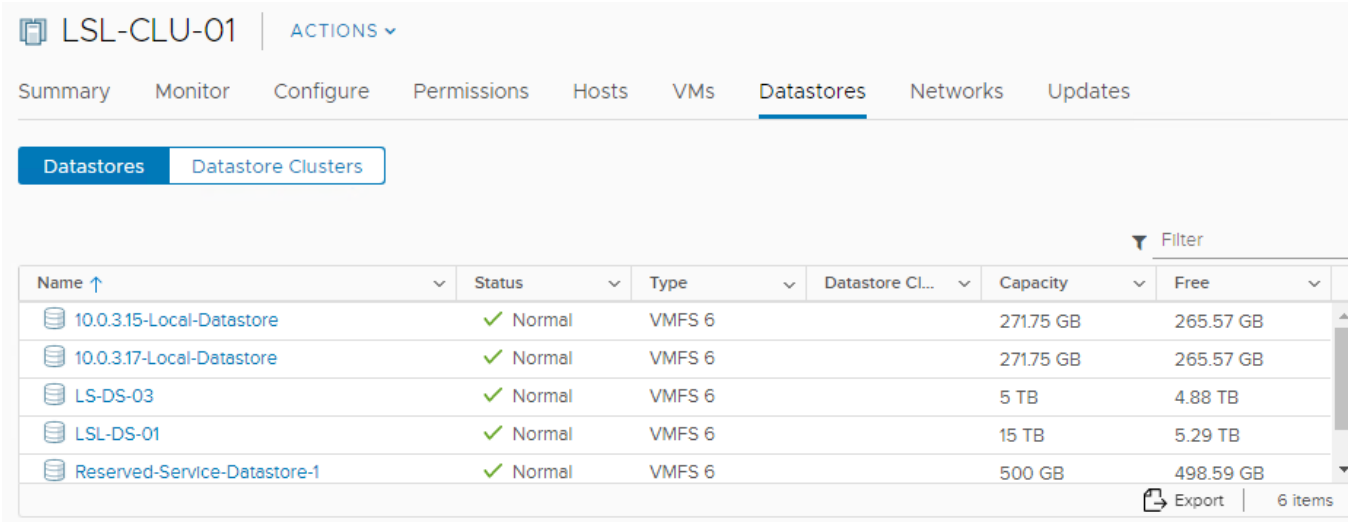
This document is intended to provide an overview of the procedure to check the redundancy of the LSL servers for HPE NIMBLE Infrastructure (VMWARE), paying special attention to:

- The necessary requirements to perform the test
- The procedure to follow for the test

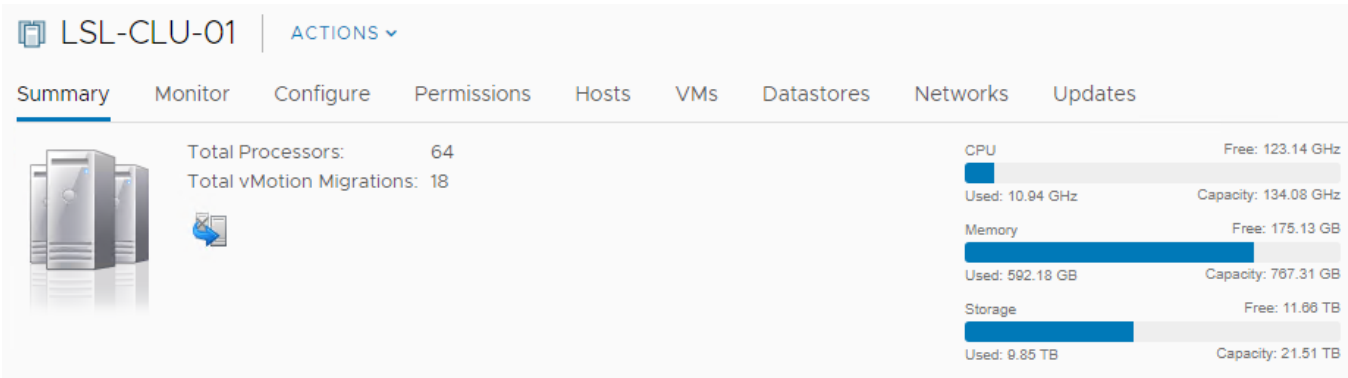
3.0 REQUIREMENTS

3.1 Verify status/connectivity between both VMware Hosts & Datastores

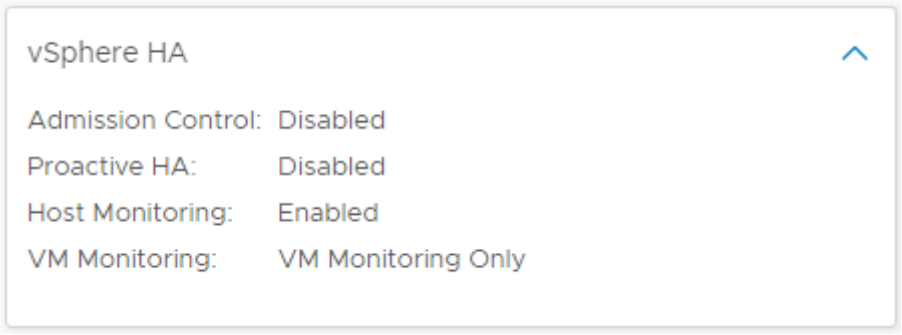


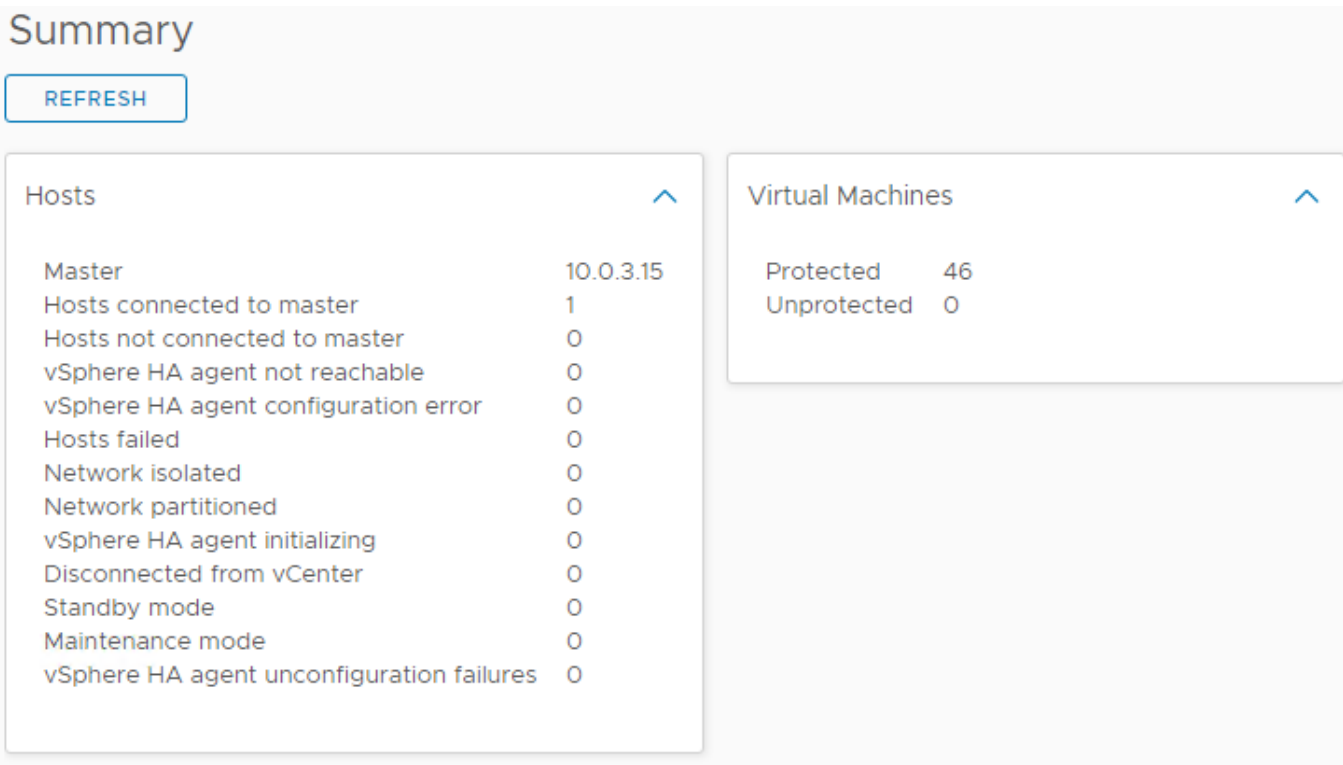


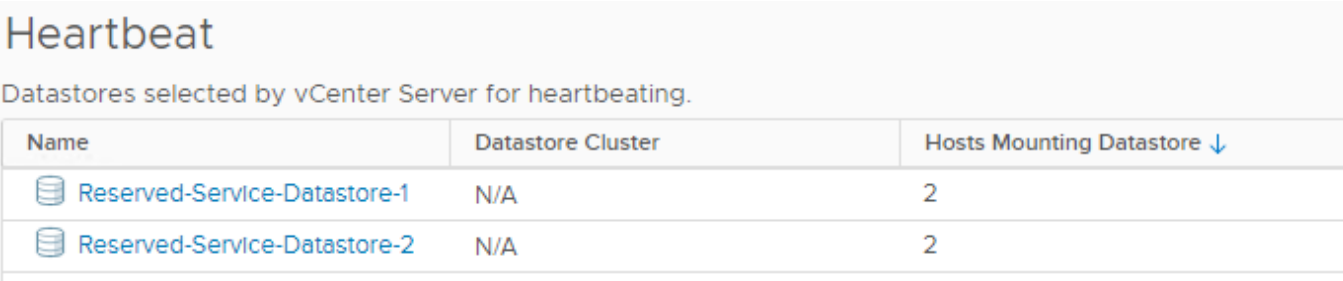
3.2 Verify VM Cluster CPU and RAM resources



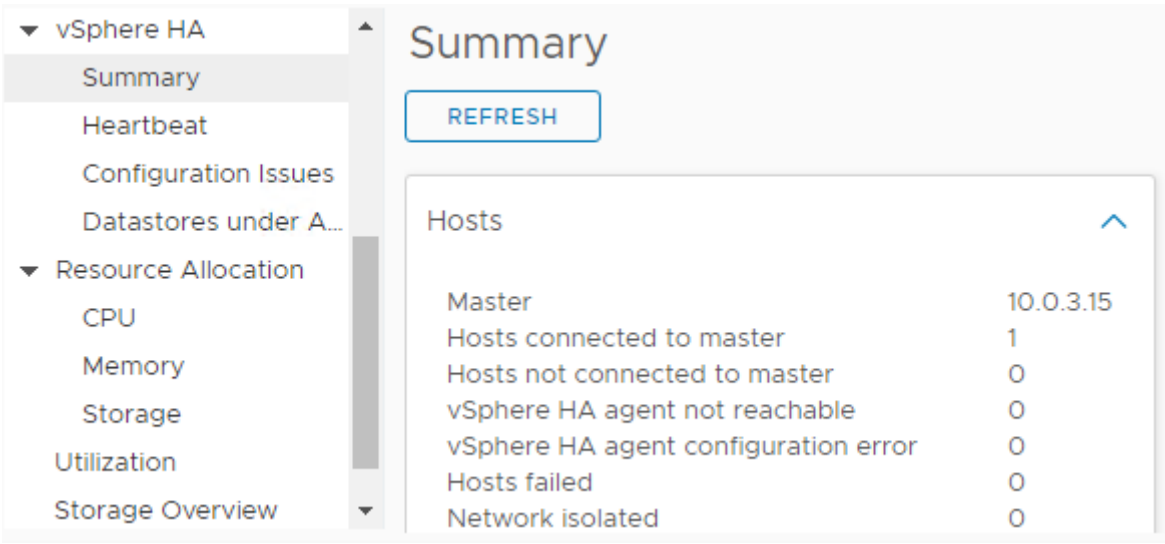
3.3 Verify vSphere HA status, Datastores Heartbeats & Configuration Issues



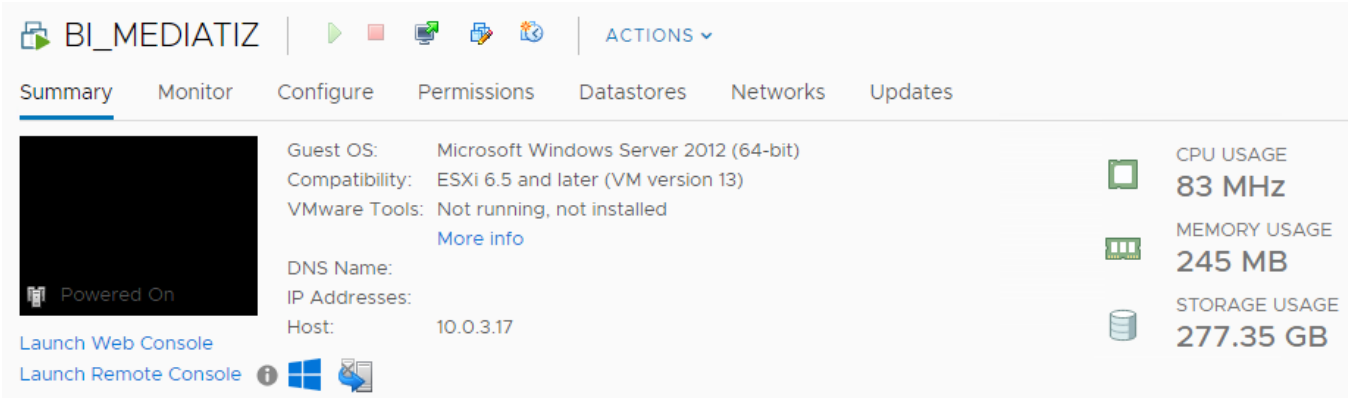


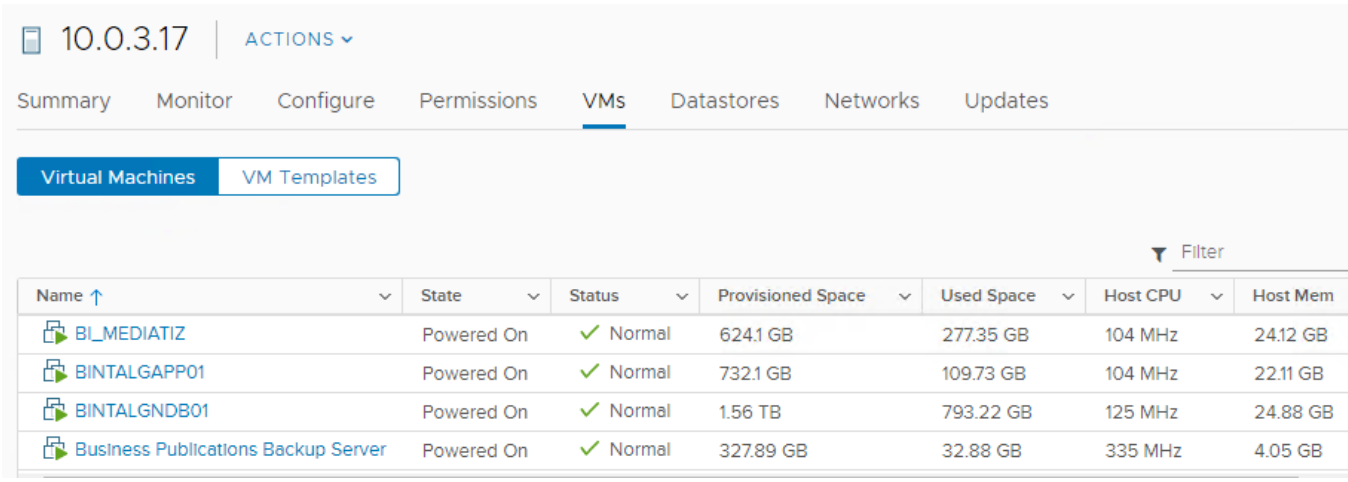


- Identify which host has been elected as **Master** and Slave



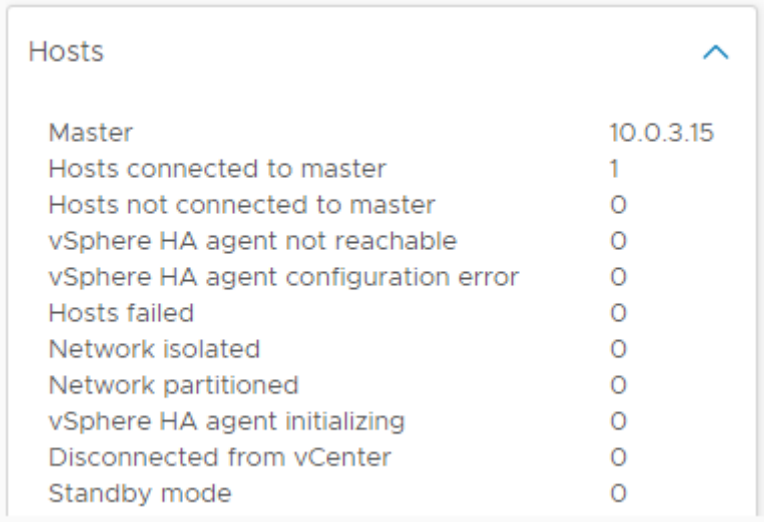
- Verify if Virtual machines are running on **Master host or Slave Host**



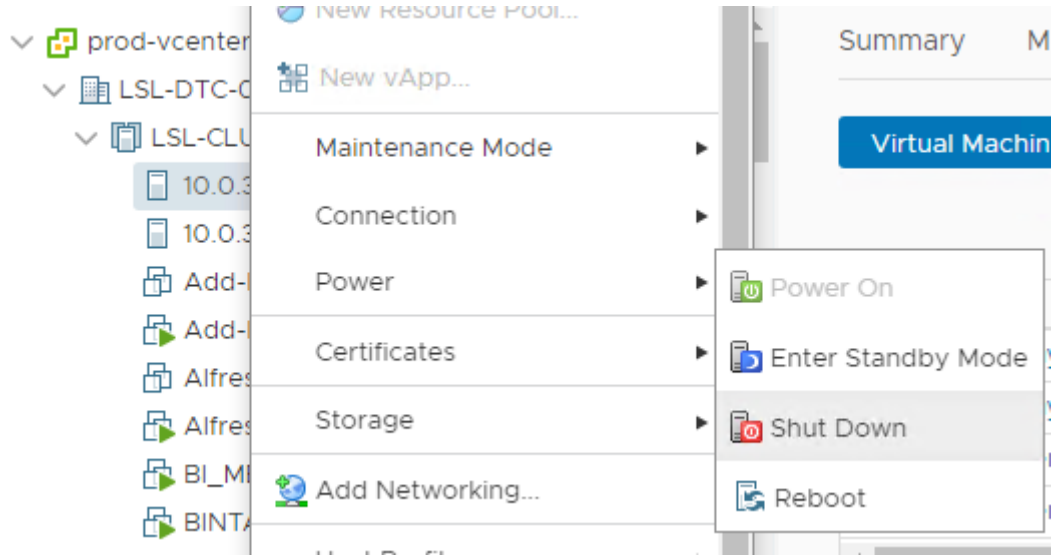


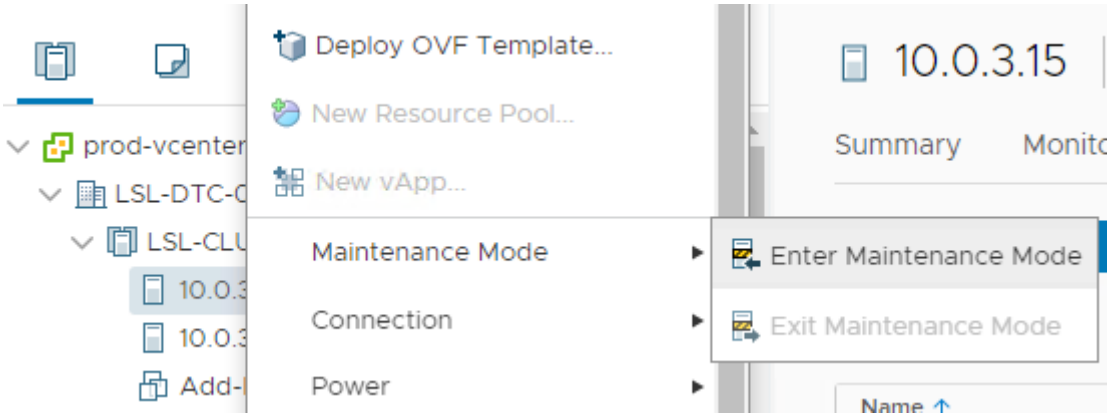
4.0 TEST PROCEDURE

4.1 Identify which is the Master / Slave VMware host



4.2 Test Failover on Master host or Slave Host by either (Rebooting, Shutting down of host, Manual force shut down, Removing of power cables, Removing of Ethernet cables or put Host into Maintenance Mode)





- When the Host has been disconnected, a new Master Host will be elected
- Virtual machines running on powered off host will be registered & restarted onto the secondary host
- Test Virtual machines connectivity through ping results
- After all Virtual machines have been successfully restarted, power on disconnected host
- Powered on vSphere host will be elected as Slave host
- VM Cluster issues need to be Acknowledged / Reset Triggered alarms to green
- Verify Status of Cluster and Configuration issues of vSphere HA after Host has been powered back ON
- Test failover again with the same procedures above on the newly elected Master host

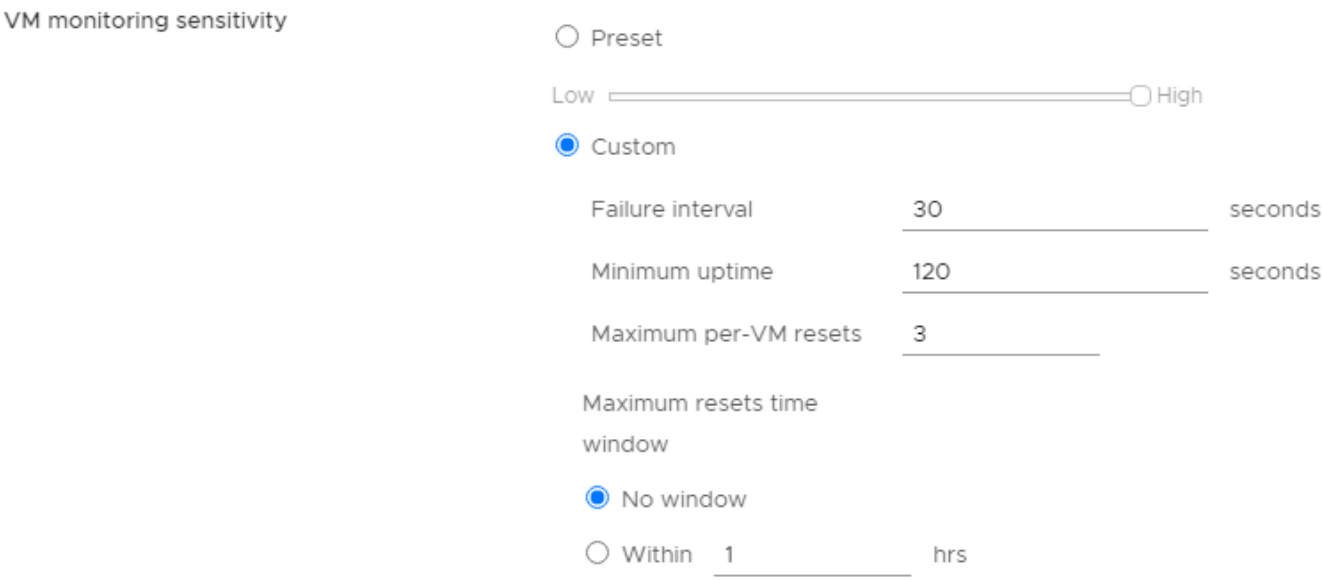
In a vSphere HA cluster, three types of host failure are detected:

- Failure. A host stops functioning.
- Isolation. A host becomes network isolated.
- Partition. A host loses network connectivity with the primary host.

Below are the pre-sets for failure detection interval: -

	Failure Interval	Minimum uptime	Maximum per-VM resets	Maximum resets time window
Low	120 secs	480 secs	3	7 days
Medium	60 secs	240 secs	3	24 hrs
High	30 secs	120 secs	3	1 hr

Actual vSphere HA VM monitoring sensitivity has been set to high: -



As per vSphere HA: -

- The default value for isolation failure detection (Shutdown, Power cut) is **15 seconds**. (*das.failuredetectiontime*) In other words the failed or isolated host will be declared dead by the other hosts in the HA cluster on the fifteenth second and a restart will be initiated by the failover coordinator.
- The time taken for the HA Agent to detect a network failure/heartbeat on a Host & HA to get into action is around **25-50 seconds**
- After vSphere HA detects the failure, a shutdown command is sent to the VMs and the restart of each VM takes around **30-50 Seconds**