

# vSAN ReadyNode™ and Component Certification

The unique vSAN certifications types are:

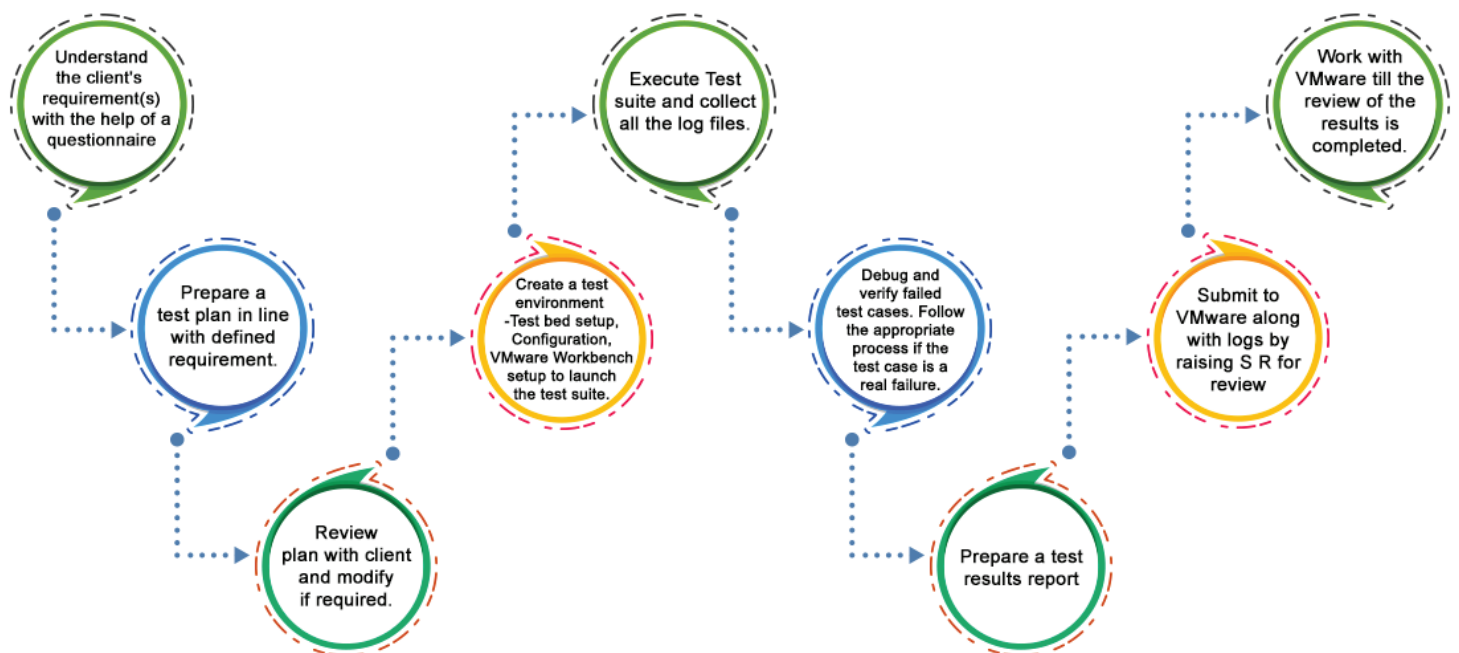
- vSAN ReadyNode™
- vSAN I/O Controller and PCIe/NVMe drive certification
- vSAN SAS/SATA drive certification

As a prerequisite for vSAN certification, the IO Controller driver and firmware combination must be IOVP Certified before beginning vSAN certification. Once this prerequisite is met, a business case should be provided to vSAN Program Management via DCPN to certify a new IO controller or PCIe/NVMe device. After vSAN Program Management sign-off, the partner can proceed with certifying the component.

VMware has developed a paper qualification process for SAS/SATA (both HDD and SSD) drives. This process leverages extensive prior testing done by drive partners and captures vital information required by vSAN.

Nexii Labs will help the partners in testing and validating the I/O Controller and PCIe/NVMe drive for vSAN ReadyNode certification.

## The Process



## Program test Scenario

It is recommended to run the tests in the following order:

- a. Performance tests
- b. Feature and Fault tests
- c. Stress test
- d. Shared VMFS Boot vSAN Datastore test (OPTIONAL)
- e. Hot-Plug test (after configuring a third host)

## VSAN I/O CONTROLLER CERTIFICATION

### *Hybrid Test:*

1. Ctrilr\_getInfo
2. Ctrlr\_reset
3. ctrlr\_70r30w\_long\_99phr\_enc – it requires KMS server
4. ctrlr\_Short\_Timeout\_IO
5. Microbenchmark Tests – performance tests with 7 different workload profiles
6. ctrlr\_combined\_long – 25 hour test
7. ctrlr\_sharedVmfs\_boot\_vsanDatastore
8. Stress\_Test

### *All-Flash Test:*

1. Ctrilr\_getInfo\_AF
2. Ctrlr\_reset\_AF
3. ctrlr\_70r30w\_long\_mdCap\_enc\_AF – it requires KMS server
4. ctrlr\_Short\_Timeout\_IO\_AF
5. ctrlr\_data\_integrity\_AF
6. Microbenchmark Tests – performance tests with 7 different workload profiles
7. Long Performance Tests – 20 hour test
8. ctrlr\_sharedVmfs\_boot\_vsanDatastore\_AF
9. Stress\_Test\_AF

### *Hot-Plug Tests:*

Around 15 test cases are there under unplanned test scenario and 20 test cases are there under planned test scenario.

1. Hotplug\_Test::DiskRemoveReinsertUnplanned — for Hybrid test
2. Hotplug\_Test::DiskRemoveReinsertUnplanned\_AF — for All Flash test
3. Hotplug\_Test::DiskRemoveReinsertPlanned — for Hybrid test
4. Hotplug\_Test::DiskRemoveReinsertPlanned\_AF — for All Flash test

## *Program testing Timelines*

Over all vSAN ReadyNode certification program testing for I/O Controllers will take around **8 weeks**, assuming all the required software, licenses and hardware are there and no issues are observed during the testing. It will take more time if any issue(s) are there. Issue(s) fixing time and re-verification time of related tests will get added.

## *Deliverables*

As part of this program, will share the following:

1. Test plan document
2. Test results along with logs
3. Test results review report sent by VMware