NUTANIX X-RAY

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Report Information

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About X-Ray

X-Ray is an automated testing application for virtualized infrastructure solutions. It is capable of running test scenarios end-to-end to evaluate system attributes in real-world use cases. The test scenarios in X-Ray provide information about the following system attributes:

Data Availability and Performance During Failure or Maintenance
X-Ray performs modeled failure scenarios to test data availability during a failure. Systems should be able to handle failures without losing data and with minimal impact to performance.

Performance Consistency with Mixed Workloads
X-Ray tests the system's ability to handle mixed workloads, demonstrating the degree to which workloads may interfere with one another. Systems should be able to perform well with mixed workloads.

Feature Set Implications
X-Ray tests use standard APIs throughout tests to clone and manage VMs, take snapshots, and perform other system manipulations. Systems should perform efficiently while using features intended for virtualized infrastructure.

This report includes the results of completed test scenarios that demonstrate the system's capabilities and responses to scenario events. Consider the following when reviewing the results:

- In scenarios that present *IOPS*, consider the variability over the test. Also consider how scenario events may affect the system's ability to perform the requested workload.
- In scenarios that present *errors* and *VM availability*, consider the impact that any observed errors or loss of availability may have on an application.

Target Overview

TARGET NAME	CLUSTER TYPE		HYPERVISOR		MANAGER		NODE COUNT
HCLVSAN-6.6	Generic		ESX	6.5.0	vCenter	6.5.0	4
Sample: NX-3060	Nutanix	5.1.0.1	ESX	6.0.0	vCenter	6.5.0	4

Scenario Overview

FINISH DATE	TIME	DURATION	NAME	TARGET NAME	RESULT
2017-06-07	05:32:03 PM UTC	7h 50m 22s	Extended Node Failure	Sample: NX-3060	Passed
2017-05-28	06:02:46 PM UTC	9h 47m 40s	Extended Node Failure	HCLVSAN-6.6	Passed

Extended Node Failure

TARGET NAME	RESULT
HCLVSAN-6.6	Passed
Sample: NX-3060	Passed

Scenario Description

Test Objectives

This test is designed to demonstrate what happens to the performance of VMs in the cluster when a node is failed without warning, similar to a single-node power failure.

Setup

1. Deploy the OLTP DB and VDI VM templates.
2. Clone 75 VDI VMs per host in cluster.
3. Clone one OLTP DB VM per host in the cluster.
4. Power on the VMs.
5. Pre-fill the OLTP DB and every VDI VM.
6. Warm up the OLTP DB VMs.

Measurement

1. Start the OLTP workload on every OLTP DB VM.
2. Wait for 20 minutes.
3. Fail the first node in the cluster by powering off through the out-of-band management.
4. Wait for 2.5 hours in the failed state for observation.

Test Requirements

- vCPUs: 154 vCPUs on every node
- RAM: 154 GB on every node
- Cluster Storage: 866GB per node
- IP Addresses: 76 per node

Note: This test scales with the number of nodes.

This test performs hardware power operations on the target's nodes, which may result in unavailability or permanent damage to non-Nutanix targets.