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
GaryCluster09	Nutanix	5.5.0.6	AHV	20170830.58	Prism	5.5.0.6	4

Scenario Overview

FINISH DATE	TIME	DURATION	NAME	TARGET NAME	RESULT
2018-04-11	02:44:01 PM UTC	18m 0s	Four Corners Microbenchmark	GaryCluster09	Passed

Four Corners Microbenchmark

WORKLOAD	GARYCLUSTER09
Random Read IOPS	312,817 IOPS
Sequential Read I/O Bandwidth	7.75 GBps
Random Write IOPS	124,211 IOPS
Sequential Write I/O Bandwidth	665.19 MBps

Scenario Description

Test Objectives

This test is designed to quickly test four workload types: random reads, sequential reads, random writes, and sequential writes.

Setup

1. Deploy one workload VM per host.
2. Pre-fill virtual disks with random data.
3. Run random read workload warmup for 5 minutes.

Measurement

1. Run random read workload for 1 minute on all VMs.
2. Wait 1 minute.
3. Run sequential read workload for 1 minute on all VMs.
4. Wait 1 minute.
5. Run random write workload for 1 minute on all VMs.
6. Wait 1 minute.
7. Run sequential write workload for 1 minute on all VMs.

Test Requirements

- vCPUs: 4 vCPUs on every node
- RAM: 4 GB on every node
- Cluster Storage: 116GB per node
- IP Addresses: 1 per node

Note: This test scales with the number of nodes.