

Nutanix Sizing Bill of Materials (BOM)

Opportunity: No Opportunity

Design Scenario: Workshop Demo

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BOM Id: a2bOd8bf-9b79-41b8-876c-d7a94507f64e

Sizer Build: 3.0.20.0

Scenario Objectives: No objectives provided for the scenario

The Nutanix Sizer calculator has generated this Bill of Material

Disclaimer:

The results generated or scenarios described in this report are estimates and should only be used as a guide to evaluate the benefit or feasibility of a future purchase of Nutanix products. The actual results realized as a result of a purchase and use of Nutanix products will vary and there is no guarantee that you will actually realize the results forecast in this report. There may be additional unaccounted for issues related to the use and deployment of Nutanix products that are not or cannot be accounted for on this report. Any estimate provided in this report is not and should not be interpreted as either a promise of or contract for a given level of performance. .


Datacenter Summary


Clusters	1
Nodes	4
Rackspace	4

Datacenter Details

Cluster-1

Workloads	Type	Workload Details	Cluster Parameters
Demo Workload	Server Virtualization	VMs - 100 Server Profile Type - Large vCPU - 4 RAM (GiB) - 8 vCPU/Core - 6 Cold Data (GiB) - 135 Hot Data (GiB) - 15	Block Awareness - Off Compression (All Flash) - On Compression (Hybrid) - On Container Compression - 30% Encrypted Storage used for VM data - Off Erasure Coding - Off Cluster Failover Capacity - N+1 Container Replication Factor - 2

Model	Nodes	Blocks
 NX-8035-G6	4	2

Product Code	Quantity	Product Description
 NX-8235-G6	2	<p>NX-8235-G6 , 2 Nodes</p> <p>Nutanix Hardware Platform</p> <p>-2 x 2 x C-CPU-5120(Intel Skylake Processor 2.2 GHz 14-core Skylake 5120 CPU)</p> <p>-2 x 12 x C-MEM-32R4-26A(32GB DDR4 2666MHz Memory Module),</p> <p>-2 x 4 x C-HDD-6TB-A5-A(6TB 3.5"-A5-A HDD),</p> <p>-2 x 2 x C-SSD-960GB-A5-A(960GB 3.5"-A5-A SSD),</p> <p>-2 x 1 x C-NIC-25GSFP2-A(25GbE Dual SFP+ Network Adapter),</p> <p>-Foundation - Hypervisor Agnostic Installer</p> <p>-Controller VM</p> <p>-Prism Management</p>

Recommended

CNS-INST-1-NC	4	<p>OFFERING: Nutanix cluster deployment, per node basis.</p> <p>DELIVERED BY: Nutanix GSO</p>
EDU-C-ADM-OLPLUS	2	<p>CUSTOMER COURSE: Nutanix Platform Administration course (Online Plus)</p> <p>DELIVERY: Online Plus (self-paced online plus guided experience and hosted labs)</p> <p>FOCUS: Platform Administration, prepares for NPP certification</p> <p>PRICED: per student</p>

Sizing Details


Workload Details

Workload Name	Workload Type	Profile Type	VMs	Cores	RAM (TiB)	HDD (TiB)	SSD (TiB)
Demo Workload	Server Virtualization	Large	100	66.68	0.78	13.18	1.46
Total				66.68	0.78	13.18	1.46

BOM Details

Capacity Calculations	Cores	RAM (TiB)	HDD (TiB)	SSD (TiB)
Raw Capacity	120.21	1.5	87.31	6.4
Compression Savings			7.91	0.88
RF Overhead			-13.18	-1.46
CVM Overhead	-16.0	-0.14	-10.26	-3.15
Workload Total	-66.68	-0.78	-13.18	-1.46
Usable Capacity RF2	37.53	0.58	29.3	1.14
Usable Capacity RF3	37.53	0.58	19.53	0.76
Usage Percentage	68.78	61.46	32.89	64.24

Rack Unit: 4 U
Typical Power: 1,876 Watts
Typical Thermal: 6,404 BTU/Hr
Weight: 141 lbs

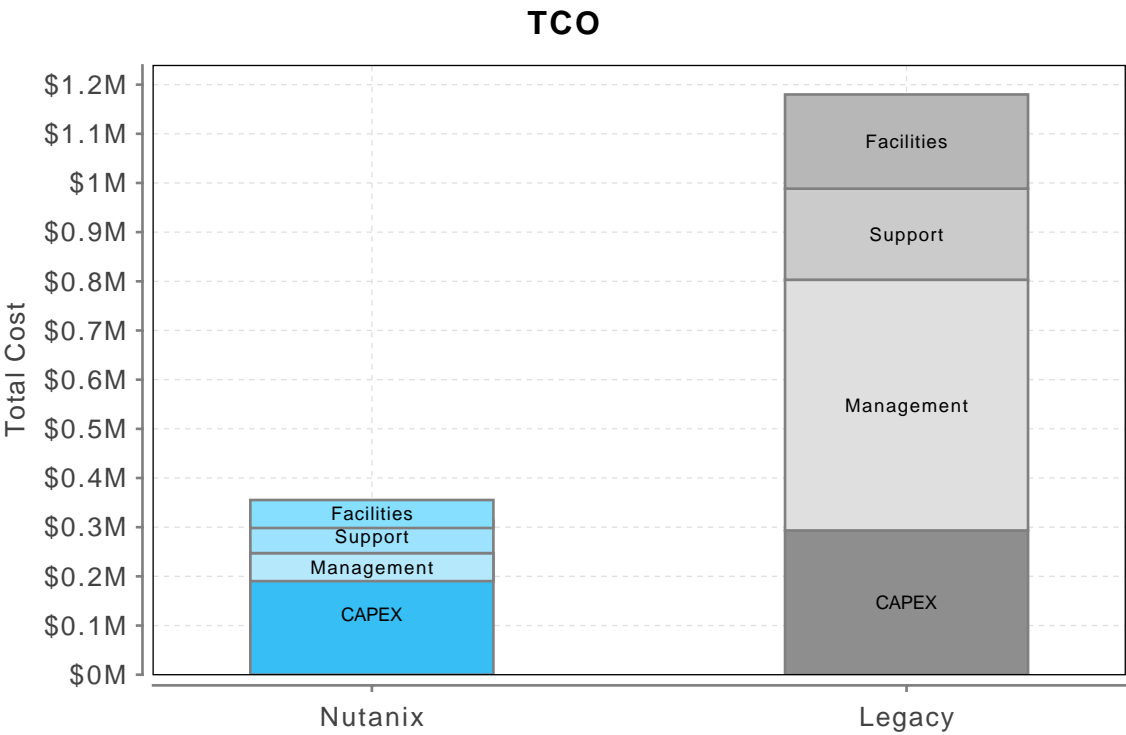
Legends	
	NX-8235-G6

Financial Analysis

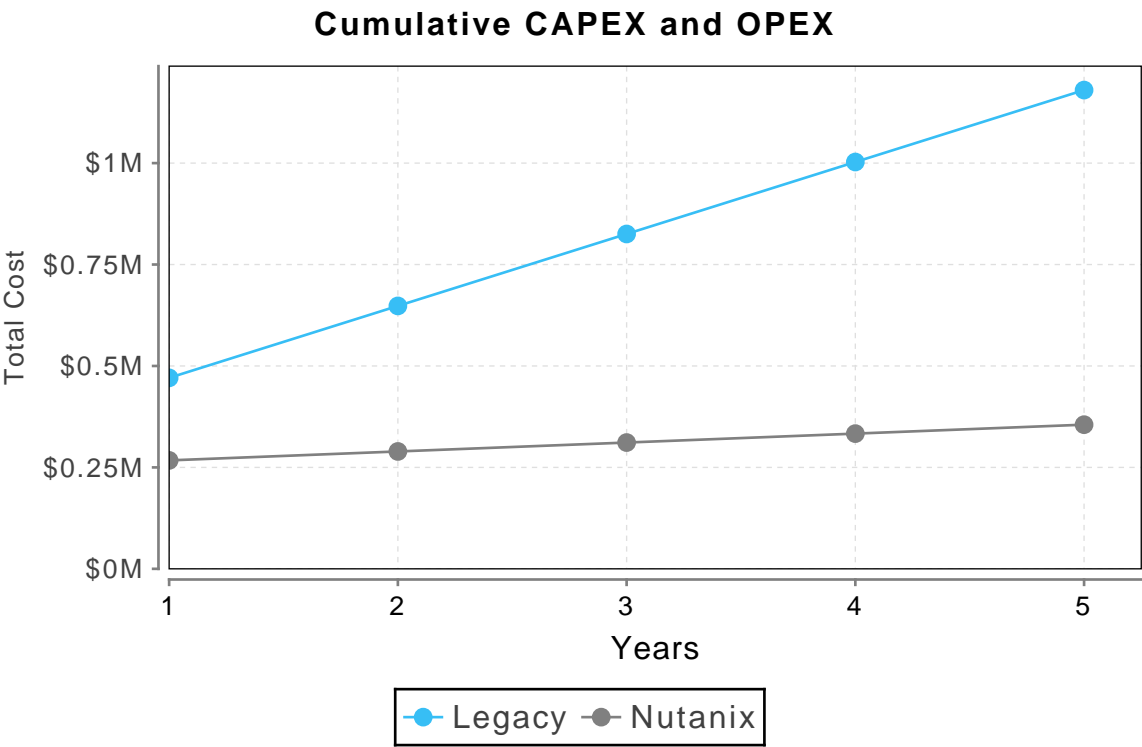
Nutanix delivers invisible infrastructure for next-generation enterprise computing, elevating IT to focus on the applications and services that power their business. The company's software-driven Xtreme Computing Platform natively converges compute, virtualization and storage into a single solution to drive simplicity in the datacenter. Using Nutanix, customers benefit from predictable performance, linear scalability and cloud-like infrastructure consumption.

The calculations presented below compare traditional three-tier (SAN + server) with Nutanix. The TCO analysis of traditional three-tier vs Nutanix compares typical costs required for mid-large size enterprises. Expenditures include storage, compute, networking and software costs. Operating expenses include support, facilities, and management costs (deployment, provisioning, on-going, troubleshooting, scaling.) For management costs, calculations were based on hours/month required per task and these assumptions were confirmed by IDC's industry averages for three-tier. Calculations are based on list pricing with assumptions made on typical discount rates in industry. Prices were derived from published vendor price lists and vendor quotes. The Nutanix TCO methodology has been validated and certified by IDC.

Nutanix is projecting a 70% savings over 5 years compared to a traditional three-tier (SAN + server) architecture.



Financial Analysis



Assumptions used for Financial Analysis

Sales Discounts

Hardware	35.00%
Software	35.00%
Support	35.00%

Additional Capex

Software Edition	Pro
Hypervisor cost per socket: vSphere	\$2875.00
10GbE Cost per Port	\$500.00
1GbE Cost per Port	\$100.00

Additional Opex

Support Level	Production
kWh Cost(Power & Cooling)	\$0.11
Rack Space per U per Month	\$50.00
Management overhead for FTE per year	\$60000.00
Management node to FTE ratio (n:1)	600.00

Nutanix Services Offers

Support Services	<ul style="list-style-type: none"> - ProSupport (Minimum) - ProSupport Plus - Nutanix Nutanix SW Support - Term: 3 or 5 years (POS) 	<ul style="list-style-type: none"> - Labor: On-Site - 2, 4, 8 & NBD Response - Remote Tech Support: 24X7
Optional Support Services	<ul style="list-style-type: none"> - Proactive Maintenance - Health Checks - KYHD 	<ul style="list-style-type: none"> - Onsite Diagnosis - Dark Site Support
Deployment Service	<ul style="list-style-type: none"> - Greenfield- Onsite Implementation services –EDT (Required) - Brownfield - Remote Implementation services - RIS 	
Education Service	<ul style="list-style-type: none"> - Web Based - Online Instructor led - Classroom 	
Consulting Services	<ul style="list-style-type: none"> - Performance Assessment - Data Migration Services - Virtualization & Private/Public Cloud Consulting Services 	<ul style="list-style-type: none"> - Business Continuity and DR Services - RCS – Remote Consulting Services

Note:

1. Design scenario is sized for 32 node clusters. These can be increased by customer to 48 or 64 node clusters based on what Hypervisor allows.
2. In Citrix XenDesktop and VMware View deployments ONE node in a cluster is required for dedicated management VMs for example vCenter and SQL Server for VMware View deployment, and XD Admin and Connection Broker for XenDesktop deployment.

Our Technology

- Unlike traditional arrays, Nutanix allows for perfect linear scalability. The much lower initial investment enables a quick payback period. The overall spend is also reduced since Moore's Law ensures declining costs relative to VM density.
- Since Nutanix is managed out of the box by the virtualization administrator, no additional storage administration is required. The 2U Nutanix footprint also minimizes power, cooling and rack space footprint. Nutanix's VM-level replication enables optimized Disaster Recovery (as opposed to replicating entire LUNs for traditional arrays).
- Nutanix's distributed file system combines local tiered storage with synchronous data replication throughout multiple nodes within a cluster, thereby allowing virtual machines to access data locally and survive node failures, distributing both compute and storage workloads among the remaining nodes in the cluster.
- It is often hard to put a cost on downtime. But storage arrays, despite having dual storage controllers, all too often do go down as a result of firmware upgrades, multiple drive failures, LUN attachment failures, human error, etc. Google built its infrastructure knowing that the commodity hardware would fail, and compensated by utilizing a distributed file system with data replicated on multiple servers. Rather than utilize ancient (1987) RAID technology, Nutanix incorporates the same type of distributed file system and data replication capabilities of GFS. The result is a similarly incredibly resilient architecture where the phrase, "The SAN is down" no longer is ever stated.
- Convergence implies the elimination of redundant hardware. Conventional converged infrastructure solutions that incorporate both servers and storage arrays do not consolidate any hardware whatsoever. They merely juxtapose the servers and arrays in the same racks or chasses and stick them at the end of a network where they're subject to performance degradation from multiple hops and from network latency. Nutanix eliminates all of proprietary and disparate storage components and instead.