

# Cost Governance for Nutanix Private Cloud

Drive financial accountability within your Private Cloud

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## COST GOVERNANCE CAPABILITIES FOR NUTANIX PRIVATE CLOUD

Organizations today are increasingly adopting a multicloud architecture that spans across private and public clouds. This provides the necessary agility and flexibility of choice needed for IT teams to quickly fulfil business needs. However, with workloads spanning public and private clouds, there is a strong need for a cost governance solution that centralizes visibility across all clouds and implements cost governance policies to keep overall IT spending within budgets. A key cost governance challenge in private cloud is the lack of immediate visibility into granular resource costs as opposed to public clouds that provide a highly granular breakdown of cost of all cloud resources based on consumption. There are also many different cost factors to consider, beyond simply the hardware and software infrastructure licenses, when it comes to evaluating the cost of owning and running a private cloud. Lastly, in order to drive financial accountability, IT Ops teams need the ability to chargeback spending to business units with a unified public and private cloud cost report. In this solution brief we will show you how the Nutanix private cloud provides cost governance capabilities such as out-of-the-box visibility into private cloud resource costs, creating automated chargeback rules to allocate spending to the appropriate business unit and accurately comparing workload costs across public and private clouds for cost-aware workload migration.



Visibility

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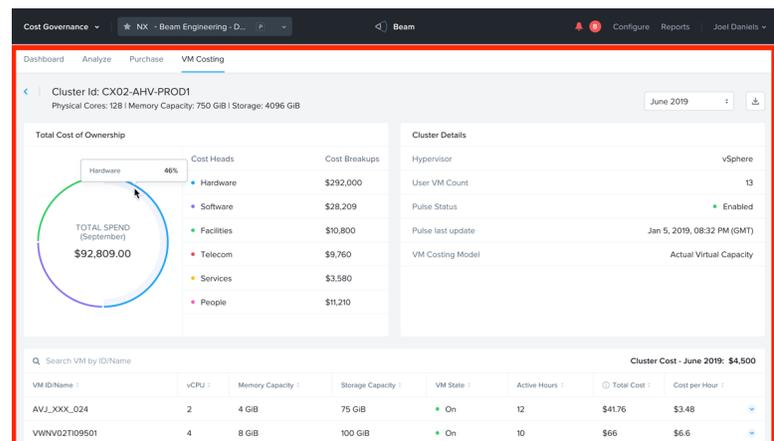
## PRIVATE CLOUD COST METERING

In order to get visibility into the true cost of various private cloud resources (such as VMs, snapshots, storage volumes, etc.) you should account for all the cost factors that go into owning and running the data-center upon which a private cloud has been built. The cost governance capabilities for the Nutanix private cloud utilize a built-in Total Cost of Ownership (TCO) model that calculates all direct and indirect costs of owning and maintaining your Nutanix private cloud. This TCO model uses configurable industry standard values for various cost factors to give you out-of-the-box visibility into your private cloud resource costs and allowing you to configure the standards to suit your needs.

There are six different cost factors in the TCO analysis:

- Hardware: Nutanix or third-party hardware license costs
- Software: Nutanix or third-party software license costs
- Facilities: Power, cooling and datacenter infrastructure costs
- Telecom: Ethernet / top-of-rack switch costs
- Services: One-time or recurring third-party services costs
- People: Salaries for IT administrative staff

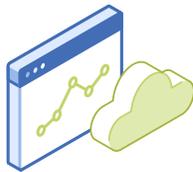
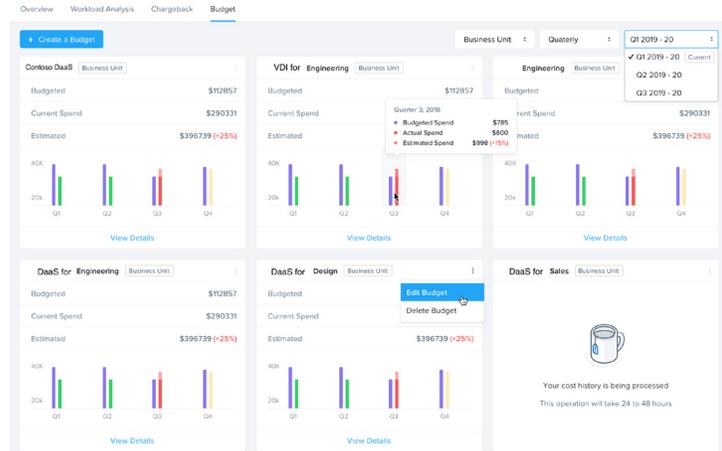
The TCO model is customizable at the individual cluster level. The key input parameter that the TCO model depends on is the number of nodes in a cluster. The overall cluster level TCO is then allocated to individual resources in that cluster (such as VMs) based on the amount of allocated capacity to a resource (such as CPU, memory and storage) in proportion to the total cluster level resources. With the TCO model configured accurately, you get out-of-the-box visibility into the true cost of VMs and workloads running on your Nutanix private cloud. The same can be done for other resources like snapshots, storage volumes, and more.



Optimization

## MULTICLOUD CHARGEBACK & BUDGETING

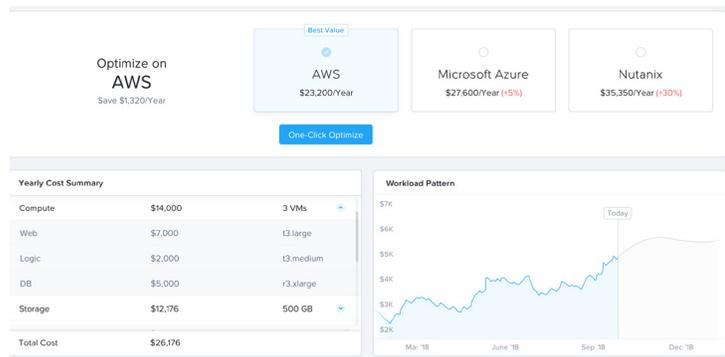
With applications and workloads increasingly spanning private and public cloud boundaries, it is critical to ensure that businesses can track and allocate spending across clouds using multicloud show back and chargeback reports. In order to drive financial accountability, it is essential to have reporting mechanisms that can automatically identify and update resource costs in real-time for both public and private clouds. The Nutanix private cloud provides a tag-based reporting structure that can be used to create highly granular cost reports and allocate spending to an appropriate business unit or cost center. However, not all resources can be or will be tagged. In order to avoid manually going through lengthy cost reports each billing cycle to identify and allocate untagged spending to a cost center, the Nutanix private cloud allows you to setup automated chargeback rules for untagged spending. Set up the chargeback rule once and all future untagged resource costs will automatically get allocated to a particular cost center saving dozens of hours of manual work each month. You can also setup budgets and track spending against those budgets so that you are proactively notified before spending goes out of control.



Control

## COST AWARE WORKLOAD MIGRATION

Nutanix can easily compare workload costs across public and the Nutanix private clouds. By using TCO based costing models for such a comparison you can ensure that the comparisons are accurate and account for all cost factors contributing to a workload running on any cloud. You can use tags to define the resources that comprise your workload and Nutanix will take care of the rest. Identifying the total cost of workload in a cloud, comparing the cost of similarly sized workloads in other clouds, and making recommendations on when it would result in cost savings to migrate from private cloud to public cloud. These cost comparisons are dynamic and ensure that you can avoid costly sticker shock due to migrating a workload that may not be as cost effective to run in a particular cloud. (Note - This feature is expected to be generally available before the end of calendar year 2020)



In addition to these capabilities for private cloud cost governance, the Nutanix solution also allows you to control your public cloud costs in the following ways:

### Automated Resource Rightsizing

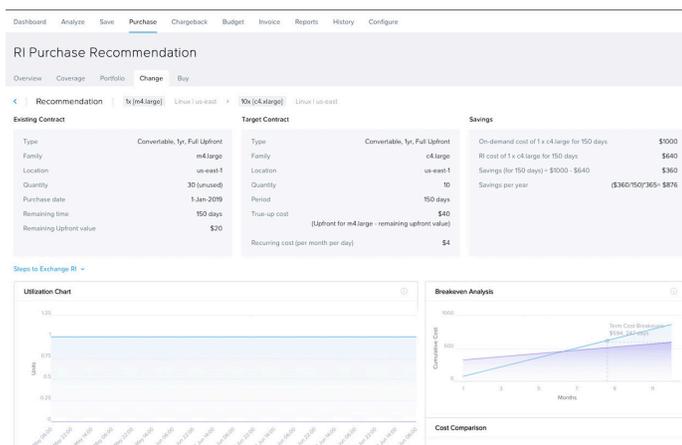
Leverage machine-learning algorithms to automatically detect anomalous spending patterns and identify unused or idle resources. Create automation policies to eliminate unused resources and right-size infrastructure to ensure optimal consumption and reduce cloud spend by 5-10% of the total cloud spend.

## Automated Scheduling Actions

Not all cloud resources, especially those used for dev/test purposes, are required to run 24x7. A key reason for increasing cloud costs is resources that are running even when they are not needed. Nutanix allows you to configure automation policies that would shut down certain resources (VMs, DBs, etc) and bring them back up at a pre-determined time without needing manual efforts. This results in reducing cloud spend by another 5-10%.

## Intelligent Reserved Instance Purchases

Make the most of reserved instance purchase plans and get deep savings over pay-as-you-go consumption. Identify the most optimal reserved instance to purchase based on your consumption history to reduce your overall cloud spend by 15-20%.



## COMPLETE COST GOVERNANCE OF YOUR PRIVATE CLOUD

Adding cost governance to your Nutanix private cloud solution brings the best of both worlds together. A private cloud built with the Nutanix HCI platform is fault resistant with no single points of failure and no bottlenecks. The system uses a shared-nothing architecture with data, metadata, and services distributed across all nodes within a cluster. Self-healing allows a cluster to detect, isolate, and recover from failures; survive system hardware, software, and hypervisor issues; and maintain data availability—all without operator intervention.

True costs can be surprisingly difficult for IT teams to estimate accurately for datacenter environment. When you combine the ability of cost governance to your private cloud you receive an accurate total cost of ownership (TCO) model, allowing you to monitor resource consumption, create and track budgets, and implement chargeback or show back to increase accountability. The Nutanix private cloud solution provides deep visibility into consumption patterns and provides cost saving opportunities across your private cloud and public cloud deployments.



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