

BUILDING  
A BUSINESS  
CASE FOR

# Hyperconverged Infrastructure

# Is It Time to Change Your Approach to IT Infrastructure?

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## ROI VS. TCO

By Steve Kaplan,  
VP Customer Success Finance

ROI and TCO are the two most common tools for evaluating different infrastructure options quantitatively. In both cases, I recommend that the analysis be performed on a cash flow basis over a period of (typically) five years. This clearly delineates the cash impact of each alternative on your organization.

### TCO

Total Cost of Ownership (TCO) measures the lifecycle costs of two (or more) alternatives—typically within the context of an approved project or existing technology. The TCO projects both the capital and operating costs of each alternative.

### ROI

Return on Investment (ROI) analyses are commonly utilized when you are considering a new project or technology. An advantage of ROI is the ability to incorporate business value such as increased revenues or cash flow in the results.

Today, companies of all sizes face growing threats from shifting consumer habits, global competitors, and well-funded startups. Digital transformation, cloud computing, and the dynamic nature of global business have changed business expectations, making IT an essential driver of revenue and an ever more critical part of your business. Your IT team is looking for ways to accelerate the adoption of digital technologies to increase customer engagement, streamline business processes, and gain a sustainable competitive advantage.

Unfortunately, the complex and fragmented IT environments that are common in today's enterprises result in application and data silos that hamper your efforts. With data isolated on incompatible systems, decision makers can't get a complete picture of business operations. Executives resort to decisions based on incomplete data or gut feelings.

Developers and business managers working to deliver next-generation applications face challenges obtaining the resources they need to be productive. With IT operations increasingly distributed across datacenters, secondary facilities, remote offices, and the cloud, protecting intellectual property and maintaining security becomes much harder. A final complicating factor: the workforce your business depends on has become more distributed and fluid. How do you empower a complex web of employees, contractors, and partners without adding to your risks?

For many companies, these business challenges require a fundamental rethinking of the approach to digital infrastructure in order to:

- Deliver a higher level of IT service
- Create and deploy new digital services and applications more quickly
- Adapt more rapidly to changing business needs

To address these needs, enterprise IT teams are adopting hyperconverged infrastructure (HCI) as an alternative to complex traditional infrastructure solutions. Our 2018 State of the Enterprise Datacenter report surveyed over 2,000 IT decision makers, infrastructure professionals, and developers and found that 67% of respondents had already deployed HCI or were actively considering it.

This guide is designed to help IT professionals understand and articulate the advantages of HCI and build a convincing business case for HCI versus both traditional and cloud infrastructure based on total cost of ownership (TCO) and/or return on investment (ROI). This guide is divided into the following sections:

- **What is Hyperconverged Infrastructure?** Overview and high-level advantages.
- **Making the Business Case for HCI vs. Traditional Infrastructure.** How HCI compares to the infrastructure in your datacenters today; includes advantages and TCO worksheets.
- **Making the Business Case for HCI vs. Public Cloud.** How HCI compares to public cloud; includes TCO worksheet.
- **Making the Business Case for VDI on HCI.** Benefits of digital workspaces for successful organizations; VDI advantages versus physical desktops and laptops; HCI benefits for VDI; ROI worksheets.



# HCI Advantages

In our worldwide survey—the 2018 State of the Enterprise Datacenter—we asked respondents to name the top benefits they experienced or expected to experience from adopting HCI as shown in Figure 1.

Operational efficiency, cost reduction, and scalability rank highly. That's not surprising given today's business environment in which IT actively seeks ways to deliver more value from limited budgets.

HCI cost reductions may result from both reduced capital expense (CapEx) and reduced operational expense (OpEx).

Further benefits include improvements to data efficiency, performance, and service and support. A properly architected HCI platform eliminates the bottlenecks that occur in traditional architectures. A single HCI vendor can provide support for the entire infrastructure stack, reducing the number of vendors you rely on for support, eliminating finger pointing, and accelerating problem resolution.

A few additional, high-ranked benefits of note are a reduction in infrastructure tasks, faster deployment, and improved data protection. All of these contribute to overall operational efficiency.

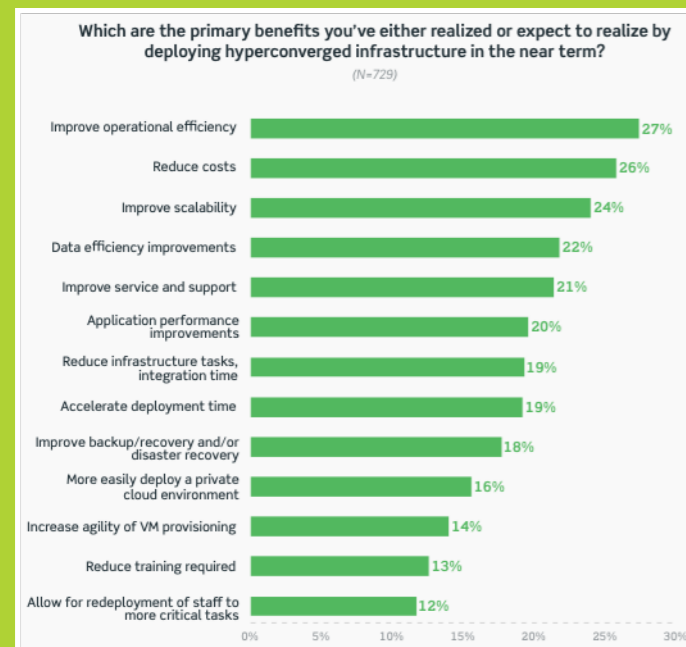


Figure 1. Primary benefits of HCI according to the survey 2018 State of the Enterprise Datacenter

## HCI ADVANTAGES ACCORDING TO HCI ADOPTERS

- Improved operational efficiency
- Reduced costs
- Improved scalability
- Greater data efficiency
- Improved service and support
- Increased application performance
- Less time spent managing infrastructure
- Faster integration
- Faster deployment

# Making the Business Case for HCI versus Traditional Infrastructure

## HCI ADVANTAGES VERSUS TRADITIONAL INFRASTRUCTURE

- **Fractional consumption.** An HCI architecture enables a pay-as-you grow strategy that matches costs more closely to needs.
- **Reduced risk.** HCI eliminates the need for disruptive forklift upgrades every three to five years.
- **New technologies.** HCI makes it possible to keep pace with changes in technology including CPUs, GPUs, solid-state storage, and memory.



**Figure 2.** Primary benefits of HCI according to the survey 2018 State of the Enterprise Datacenter

The first issue you'll need to address when making the business case for HCI is how it stacks up to the infrastructure you already have. The physical differences and some general advantages were described in the preceding section. There are several additional benefits that contribute to an overall TCO advantage for HCI versus traditional infrastructure.

## FRACTIONAL CONSUMPTION

Traditional storage area networks (SANs, including all-flash arrays) come with a number of economic challenges. Any time you add a new storage array, it creates an additional infrastructure silo and requires a painful data migration. As shown in Figure 2, you end up purchasing more capacity up front than needed, increasing the cost of rack space, power, and cooling—and increasing depreciation due to the extra hardware. Whenever additional capacity is needed, there's a big step up in cost.

Many HCI architectures, by comparison, let you pay as your needs grow by adding a node at a time. This matches your spending more closely to your needs as illustrated in Figure 2.

## REDUCED RISK

Every three to five years, your organization faces a disruptive forklift upgrade to replace your SAN storage. This disruption may come even sooner if you guess wrong on your initial purchase. HCI architectures reduce or eliminate the need for forklift upgrades by allowing your HCI cluster to scale and evolve. As you add new nodes, you can choose the latest storage and CPU technology. When it becomes necessary, you simply retire or repurpose older nodes from your HCI cluster without disruption.

A significant advantage of this approach is it allows you to take advantage of Moore's Law. Processor performance grows steadily with time. The HCI nodes you buy 12 months from now will have more computing power than the ones you buy today. Hardware-enabled increases in density reduce the number of new nodes required to handle the same workloads, reducing your total cost versus upfront provisioning of hardware.



# FLEXIBLE ADOPTION OF NEW TECHNOLOGIES

An HCI architecture not only lets you take full advantage of faster CPUs as they are introduced, it can also allow you to adopt new technologies such as GPUs and flash more quickly by incorporating new nodes containing these technologies into your existing cluster(s).

For comparison, suppose you purchase a hybrid storage array, but in six months you decide you need all-flash performance. Your only choices are to:

- Replace the hybrid array with all-flash, which is expensive and disruptive.
- Add an all-flash array alongside the existing array; this is expensive and adds to datacenter complexity.

With the right HCI architecture, you simply begin adding all-flash nodes, gaining all-flash performance with each node without creating new silos that have to be managed separately.

# TCO ADVANTAGES OF HCI VS. TRADITIONAL INFRASTRUCTURE

HCI can offer significant TCO advantages versus traditional datacenter infrastructure. The example below starts with an environment to host 800 VMs and grows the environment by 25% each year. The traditional infrastructure calculation assumes half of the VMs are on blades and half on rackmount servers.

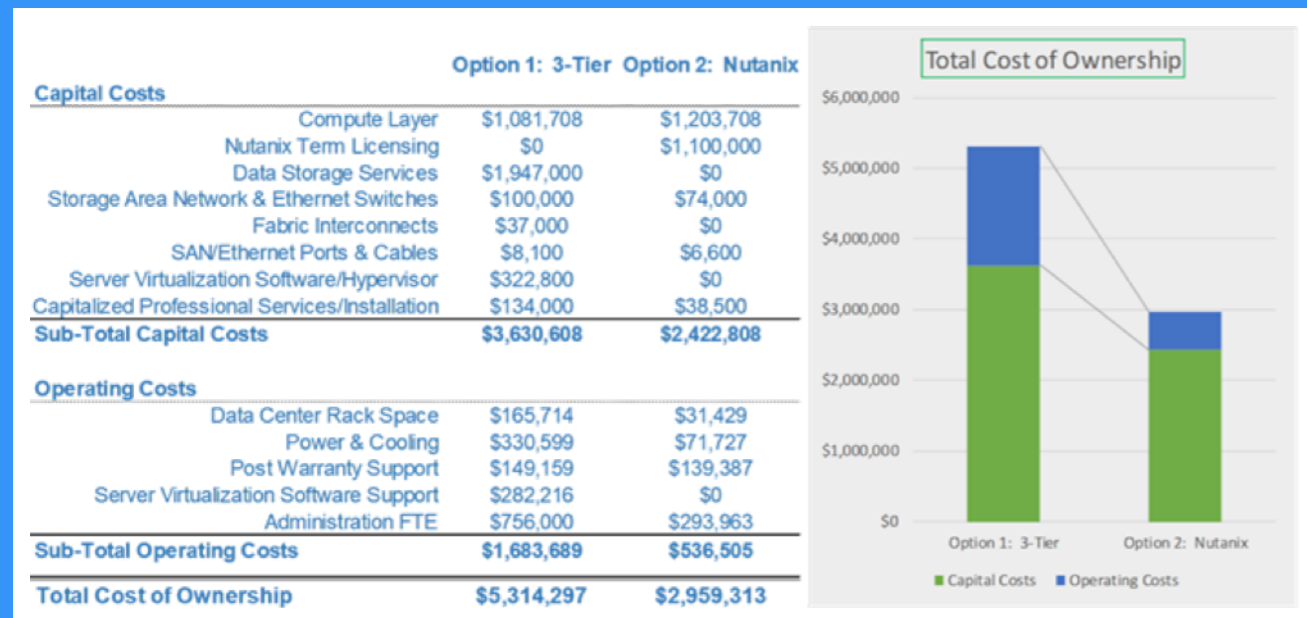


Figure 3. HCI 5-year TCO versus traditional (3-tier) infrastructure.

This HCI configuration offers a 33% reduction in CapEx and a 68% reduction in OpEx, yielding an approximate 44% reduction in overall TCO versus traditional infrastructure with separate servers and storage.

## SHOULD YOU USE VENDOR TCO CALCULATORS?

Many hardware vendors offer TCO calculators. You may choose to use these calculators to get a first estimate of your equipment costs. Just make certain that the calculator includes all the items shown in the worksheets. If you're considering servers and storage from different vendors, this adds an additional level of complexity.

Major HCI vendors may also offer TCO calculators that you can use to get an initial estimate of your HCI costs.

## TCO WORKSHEETS

To calculate your TCO, use the HCI and traditional infrastructure worksheets shown. If you prefer, it's a fairly simple process to create a spreadsheet to do the necessary calculations while incorporating any business logic you may already have in place.

HCI Total Cost of Ownership	Investment	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Estimated # of VMs							
<b>Capital Expense</b>							
HCI Nodes							
HCI Software							
Ethernet Switch							
Ethernet Ports & Cables							
Guest OS (Windows)							
vCenter Licenses							
ESX Hosts Licensing							
Datacenter (Hyper-V) Licensing							
SCVMM Licensing							
Professional Services/Installation							
<b>Total Capital Expense</b>							
<b>Operating Expense</b>							
Data Center Rack Space							
Power & Cooling							
Node Post Warranty Maintenance							
Net Switch Post Warranty Maintenance							
Windows Guest OS SA							
Datacenter (Hyper-V) SA							
SCVMM (Hyper-V) SA							
vSphere SNS Support							
Administration							
<b>Total Operating Expense</b>							
<b>Total CapEx &amp; OpEx</b>							

Figure 4. Worksheet for calculating HCI TCO. Input each value based on vendor quotes or best estimates based on available data.

Here are a few guidelines for completing the HCI worksheet:

- **Estimated number of VMs.** Enter your target for each year. You can increase the number of VMs over time as needed, just be sure to enter the resulting costs appropriately. Use the same number of VMs for both worksheets.
- **Capital Expense.**
  - **HCI costs.** Enter the appropriate HCI hardware and software costs in the year where they will occur. Initial costs should be entered in the investment column.
  - **Networking costs.** Include expected costs for networking equipment needed to support HCI nodes. Be sure and include the licensing costs associated with virtualization software (if any) in the rows provided.
  - **Virtualization costs.** Enter costs for your chosen hypervisor as appropriate.
- **Operating Expense.** Enter rack space, power, and cooling costs based on actual space and power costs for your datacenter, if known. This will require you to calculate the rack space needed as well as the power consumed for each infrastructure element in Kwh. You'll also need to know your cost per Kwh of electricity and the power utilization efficiency (PUE) of your datacenter. If you don't know your PUE, use 1.8, the enterprise datacenter average. Your annual power and cooling equals:

$$(\text{total power consumption of all equipment in Kwh}) * (\text{cost per Kwh}) * \text{PUE} * 24 * 365$$

- **Administration.** A big OpEx differentiator for HCI is reduced administration costs resulting from the elimination of separate storage components and other advantages. Expected savings may vary among HCI vendors. Nutanix typically anticipates reductions up to 60%.

Once you have accurate figures entered, sum each column and row to calculate totals. The figure in the lower right is your TCO for this HCI configuration. Once you estimate TCO for your chosen HCI configuration(s), move on to any traditional infrastructure configurations you are considering using the following worksheet:

Traditional Infra Total Cost of Ownership	Investment	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Estimated # of VMs							
<b>Capital Expense</b>							
Chassis							
Blades							
Rackmount Servers							
Storage Controller/Arrays							
Storage Disk Enclosures							
Storage Area Network Switches							
Fabric Interconnects							
SAN Ports & Cables							
vCenter Licenses							
ESX Hosts Licensing							
Datacenter (Hyper-V) Licensing							
SCVMM Licensing							
Capitalized Professional Services/Installation							
<b>Total Capital Expense</b>							
<b>Operating Expense</b>							
Data Center Rack Space							
Power & Cooling							
Server Post Warranty Maintenance							
Storage Post Warranty Maintenance							
SAN Switch Post Warranty Maintenance							
Fabric Interconnect Post Warranty Maintenance							
Datacenter (Hyper-V) SA							
SCVMM (Hyper-V) SA							
vSphere SNS Support							
Administration							
<b>Total Operating Expense</b>							
<b>Total CapEx &amp; OpEx</b>							

Figure 5. Worksheet for calculating TCO for traditional infrastructure. Input each value based on vendor quotes or best estimates based on available data.

Here are a few guidelines for completing the traditional infrastructure worksheet:

- **Estimated number of VMs.** Enter the same targets as for the HCI worksheet.
- **Capital Expense.**
  - **Server costs.** Enter the appropriate blade and/or rackmount server costs.
  - **Storage and SAN costs.** Be sure to include costs for separate storage systems as well as any SAN components you require.
  - **Networking costs.** Include expected costs for any other necessary non-SAN networking equipment.
  - **Virtualization costs.** Include the licensing costs associated with virtualization software (if any) in the rows provided.
- **Operating Expense.** Enter rack space, power, and cooling costs based on actual space and power costs for your datacenter. (See guidelines for HCI above for more detail.)
- **Administration.** Assuming you are currently using traditional infrastructure in your datacenter, estimate costs based on your current costs.

Once you have accurate figures entered, sum each column and row to calculate totals. The figure in the lower right is your TCO for the configuration.



# Making the Business Case for HCI versus Public Cloud

## MAKING CLOUD DECISIONS

By Tim McCallum, Director,  
Customer Success Finance, Nutanix

I spent much of my career running datacenters for large telcos including T-Mobile, AT&T, and Verizon. We adopted cloud services quickly when they became available, but in a short time we started to experience “cloud remorse.” In many cases, we were paying a premium over what our on-premises costs would have been.

Public cloud has big benefits, but you need to examine your applications and use cases carefully.

### Greater Agility, Lower Costs

A large game developer found it couldn't move fast enough doing development work in-house on traditional infrastructure. This team settled on AWS as the public cloud that gave them the agility they needed. However, the \$1,500 to \$3,000 monthly spend they anticipated quickly grew to \$50,000 a month.

Careful modeling found that moving half of the workload back on premises with HCI would reduce costs by about 62%—with break-even coming in about eight months including the initial capital outlay.

You may also need to address how HCI compares to public cloud costs to run the same workloads in your business case. Over the last several years, many enterprises have experimented with a cloud-first strategy, and some have tried to move the entirety of their IT operations to the cloud with mixed results. (See sidebar.)

Today, enterprises prefer a hybrid cloud strategy that combines the predictability and control of corporate datacenters with public cloud to address peak needs, special projects, and some customer-facing applications.

Our 2018 State of the Enterprise Datacenter study supports this conclusion as shown in Figure 6. Respondents clearly preferred private cloud or public plus private over public cloud alone to satisfy a wide range of selection criteria.

In many situations the cloud is simply not a money saver. When you factor in all the costs—including getting the performance you need, data protection costs, and other variables—it can be twice as expensive to run predictable workloads in the cloud. As a rule, very few existing enterprise applications are engineered to be well suited to the public cloud. It may be years before legacy applications evolve to be public cloud ready. If you move an application that isn't ready to the public cloud, you'll likely find you are burning money and not meeting your SLAs.

The applications that do belong in the cloud often fall into two categories:

- Highly elastic applications
- New applications where you don't yet understand the demand

Applications that have a low ecosystem requirement and are very elastic—have highly variable resource requirements—are often best suited for the public cloud. They can get all the resources they need when they need them and release them when they don't. Hosting a highly elastic application on premises might mean having to provision a large amount of expensive infrastructure to accommodate occasional activity spikes.

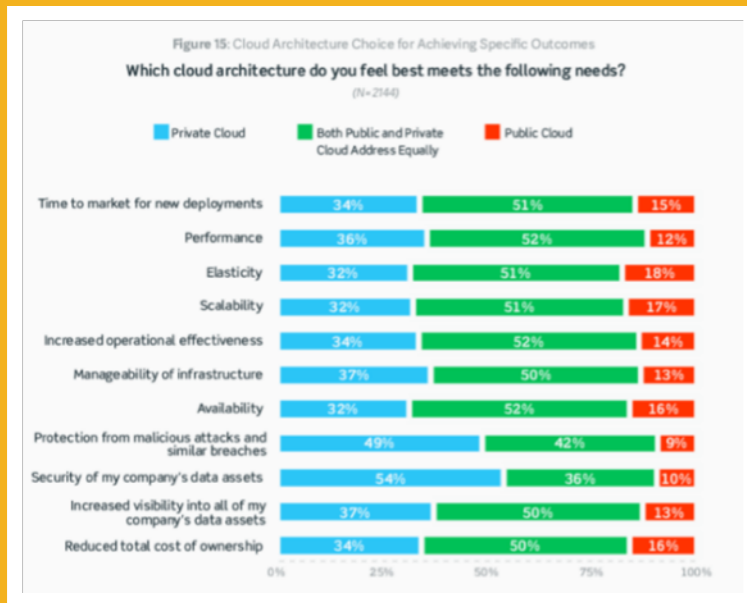


Figure 6. Survey respondents strongly prefer private and hybrid cloud over public cloud alone.

## HCI ADVANTAGES VS. PUBLIC CLOUD

A properly architected HCI solution delivers many of the same advantages that enterprises seek in the public cloud:

- Scales quickly and easily
- Responds readily to business changes
- Better supports your developers and DevOps efforts

Because HCI architectures rely on simple building blocks similar to those used by public cloud providers, they deliver many of the same benefits with a number of additional advantages:

- **Control.** You have less fine-grained control over workloads running in the cloud than you do on premises.
- **Security.** Many enterprises, particularly those in regulated industries such as healthcare and financial services, remain concerned about committing sensitive data to the public cloud. HCI architectures offer enterprises a more familiar security model. Because much of the infrastructure stack is provided by a single vendor, HCI may also offer greater security than traditional datacenter infrastructure.
- **Consistent management.** Many IT teams get into trouble in the cloud because the management paradigm is different. Mistakes and errors can result in outages or leave data exposed. HCI can be easier for IT teams to understand, implement, and manage.
- **Predictable costs.** HCI costs are not only more predictable, Total costs for HCI can work out far more favorably.

*Making Cloud Decisions (cont.)*

### Do Your Homework on Elasticity

Another company was running 14 front-end application servers plus a back-end database that needed to be up all the time. The IT team felt this was an ideal cloud use case, since they could drop to just two application servers at night.

However, a full analysis showed a cost reduction of 45%-68% (depending on the cloud provider) when running on premises with HCI. The savings from shutting down 12 instances overnight did not offset the cloud premium.

### Sometimes Cloud Is a No-Brainer

There are use cases where public cloud makes sense: Another company was running a report requiring in excess of 5,000 cores for six-to-eight hours.

Because the report only runs three or four times a year, no analysis was necessary to see that this was a perfect public cloud use case. The capital cost associated with provisioning enough cores to have 5,000 free cores a few times a year on premises will always be prohibitive.

# TCO ADVANTAGES OF HCI VERSUS PUBLIC CLOUD

Most enterprise datacenters include a large number of applications that are allocated specific resources up front. Unless the workload was over-provisioned initially, resources are typically not released during the life of the application. Additional compute and/or storage may be added as the workload grows. The advantage of HCI versus the public cloud is particularly clear for this scenario as Figure 4 illustrates.

## HCI Advantages vs. Public Cloud

- **Control.** An HCI architecture enables a pay-as-you grow strategy that matches costs more closely to needs.
- **Management.** HCI makes it easier to keep up with changes in technology including GPUs and flash storage.
- **Total Cost of Ownership.** HCI offers clear TCO advantages versus public cloud for many enterprise scenarios.

## Should You Use Cloud TCO Calculators?

Each of the major cloud vendors offers a TCO calculator. You may choose to use these calculators to get a first estimate of your cloud costs. However, in many high-level cloud analyses the results can be misleading because cloud costs are calculated using low-level technology. It is very important to level-set technology utilization by mapping on-premises VMs accurately to the corresponding cloud instances to make sure you're doing an apples-to-apples comparison.

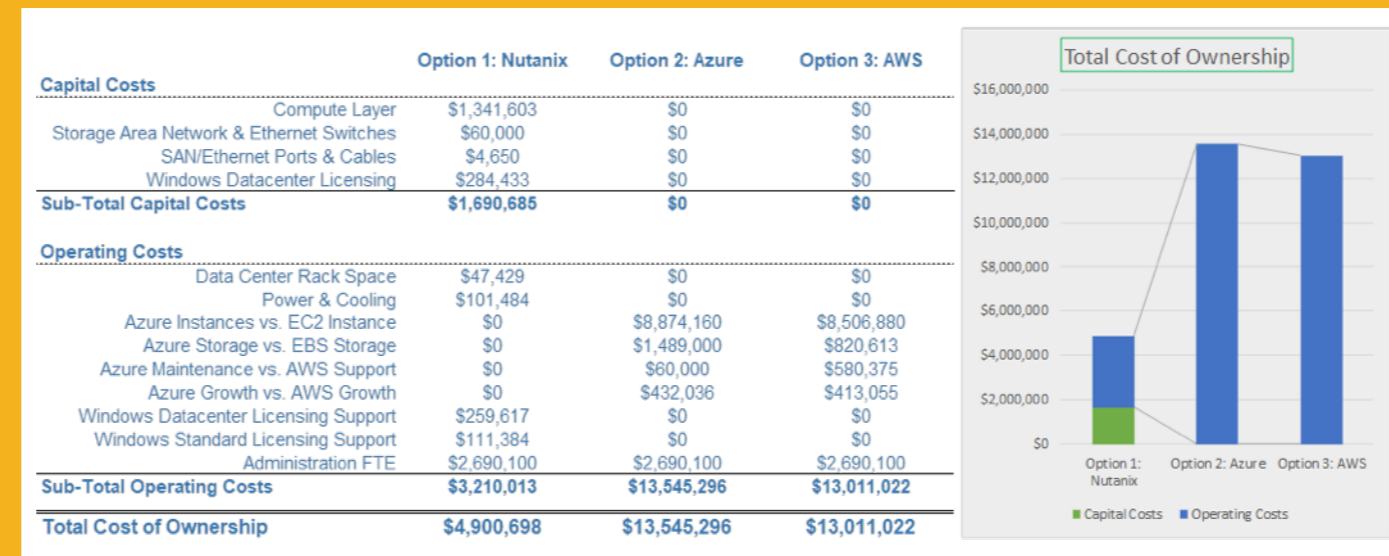


Figure 7. HCI 5-year TCO to support 1067 VMs versus AWS and Azure.

The table and figure compare the TCO over a five-year period for an initial 1,067 virtual machines running either on premises, in AWS, or in Azure with a 2% annual growth rate in the number of VMs. Overall TCO savings with HCI are 60% or more.

Note that this TCO calculation includes all upfront capital costs of HCI including professional services. It also includes expected HCI operating costs such as datacenter space, power, and cooling; post-warranty support for the five-year period; guest OS support; and administration costs. Operating costs for each cloud service include compute instances, storage costs, and cloud support.

This is a relatively straightforward projection for VMs/cloud instances that run continuously, making it a good approach to use for modeling traditional enterprise applications that are running continuously in your datacenter today.

# TCO WORKSHEET

To calculate your own three-year or five-year TCO comparison, use the following worksheet to estimate your costs for each cloud provider. Accurate numbers can usually be obtained from each provider's website.

Public Cloud Total Cost of Ownership	Investment	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
Estimated # of VMs							
Compute Instances - Upfront							
Support - Upfront							
Professional Services/Installation							
Compute Instances - On-Demand							
Storage - On-Demand							
Support - On-Demand							
Growth							
Administration							
<b>Total Cost</b>							

Figure 8. Cloud provider TCO worksheet.

Here are a few guidelines to help you:

- **Estimated number of VMs.** Enter your target for each year. You can increase the number of VMs over time as necessary, just be sure to adjust the costs appropriately.
- **Upfront costs.** Include any upfront payments you'll make for compute instances and support in the investment column. Cloud providers may offer significant cost incentives for upfront commitments.
  - If the term of the commitment is shorter than your TCO calculation (for instance three years in a five-year TCO), be sure and include additional upfront costs in the year(s) they occur.
  - If you expect to make upfront payments for additional resources over time, also include those in the year they occur.
- **On-demand costs.** Include your estimated costs for on-demand compute instances, storage, and support in the year(s) where they occur.
- **Administration.** Include any expected administration costs charged by the provider.

Once you have accurate figures entered, sum each column and row to calculate totals. The figure in the lower right is your TCO for the provider.

For HCI TCO, use the worksheet illustrated in Figure 4 in the previous section and the corresponding guidelines. For comparison purposes, it may be helpful to create a summary table similar to the example included in Figure 5.

## What Happens to IT Admin Costs if You Move to Cloud?

Cloud TCO analyses often make outlandish claims about IT administrator savings. These savings are often one of the main points driving a decision to move to the public cloud. There are significant changes. Companies operating in the public cloud do not require datacenter engineering staff and equipment handlers. But most administrators adapt to become cloud administrators and fill newly created governance roles that replace those displaced out of hands-on equipment roles.

Companies who fail to create these new roles often suffer from the worst cloud overruns. Therefore, in analyses between on-premises HCI and public cloud, it is safest to assume administrative costs will remain similar if not the same.

# Making the Business Case for VDI on HCI

## UNDERSTANDING VDI PERFORMANCE

From an infrastructure standpoint, VDI is more challenging than server virtualization. An organization may have hundreds to thousands of users, each with unique expectations, application requirements, and perceptions.

VDI workloads can be write-heavy and highly random, making it difficult to achieve consistent performance: demands may swing wildly depending upon usage patterns, time of day, and the applications being used. Boot storms, antivirus scans, and patch updates all put sudden loads on the infrastructure and affect performance for end users. Getting the infrastructure right is critical to VDI success.

### Advantages of VDI vs. Physical Desktops

- Better meets evolving needs of the digital workplace
- Facilitates onboarding/offboarding
- Improves data security, reduces risk
- Facilitates BYOD
- Decreases per-user costs and offers significant ROI

As part of ongoing modernization efforts, many enterprises are adding support for advanced digital workspaces built on virtual desktop infrastructure (VDI) and application virtualization. This section is intended to help you make the business case for VDI. You can skip ahead if VDI is not currently a part of your modernization plan.

## WHY VDI?

Physical desktops and laptops are often a poor fit for today's dynamic, digital workplace. VDI and application virtualization are often a much better alternative, enabling users to access applications and information from anywhere; collaboration improves while data remains secure in your datacenter. The main advantages of VDI versus traditional desktops and laptops include:

- Better meets workplace and worker needs
- Improves data security
- Enables bring your own device (BYOD)
- Lowers costs
- Simplifies and accelerates onboarding/offboarding

## WHY CHOOSE HCI FOR VDI?

A VDI deployment succeeds or fails based on the end-user experience. The biggest infrastructure challenges are designing for scale and delivering predictable performance. Traditional datacenter architectures can require buying large blocks of infrastructure up front that don't scale linearly. As a result, scaling complications (as illustrated earlier in Figure 2) become even more pronounced. It can be hard to predict when you will need to add storage performance.

A properly architected HCI solution addresses these scaling challenges. HCI can be the ideal platform to support your digital workspace needs:

- **Faster Deployment.** Easier to plan and deploy a scalable solution.
- **Better Scaling.** HCI can deliver predictable, linear scaling. Each additional node supports a predictable number of additional users, taking the guesswork out of VDI expansion.
- **Better User Experience.** End users see faster performance without unexpected slowdowns.
- **Less Management.** VDI is easier to manage on HCI, reducing operating costs and streamlining troubleshooting.
- **Lower Costs.** HCI can deliver greater user satisfaction at a lower cost than traditional infrastructure while enabling you to add infrastructure in the right increments as users are added.



# VDI ON HCI: RETURN ON INVESTMENT

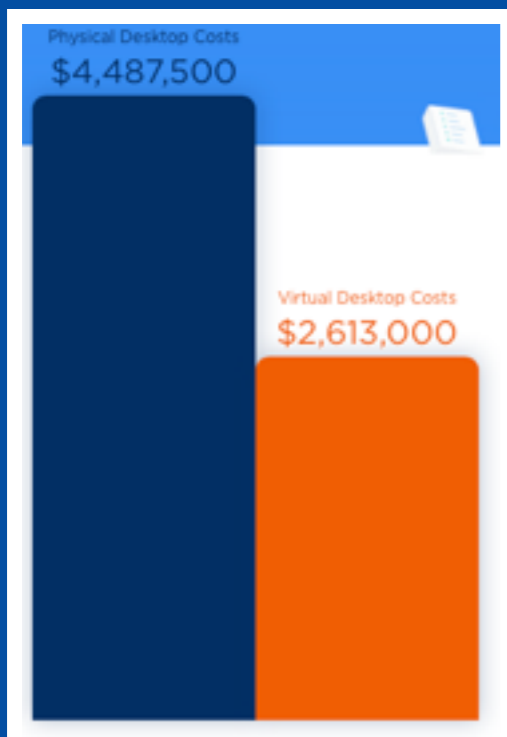
If you're considering a VDI deployment, the most important thing to understand is the ROI versus continued use of physical desktops. The five-year ROI analysis for 1,000 VDI desktops versus physical desktops shows substantial cost benefits.

In this example, the HCI/VDI solution not only delivers over 1.8M in savings, it provides a 315% ROI with payback in about six months. The analysis takes into account a range of factors including:

- Physical desktop and laptop costs
- Refresh rate for physical machines
- Cost of physical setup
- Concurrent users up to 90%
- Staffing hours required per physical or virtual user

Note that the advantages of VDI can become even more pronounced as the total number of virtual seats grows. To calculate an ROI for VDI based on the specifics of your operations visit:

[nutanix.com/calculator/vdiroi](https://nutanix.com/calculator/vdiroi)



Total return on investment over 5 years

## ADVANTAGES OF HCI FOR VDI VS. TRADITIONAL INFRASTRUCTURE

- Fast, simple deployment
- Linear scaling takes the guesswork out of VDI planning
- Enables pay-as-you grow scaling
- End users see better performance without unexpected slowdowns
- VDI is easier to manage on HCI

# Choosing the Best HCI Solution for Your Needs

## NUTANIX CLIENT STRATEGY TEAM

The Client Strategy Team performs in-depth financial modeling engagements for select clients and prospects at no charge. All members of the team have extensive financial modeling experience.

Nutanix approaches engagements with the same rigor and discipline as non-vendor consultants. We provide a transparent analysis that enables easy verification of the results. The analysis reports range between 20-25 pages and are suitable for presentation to CFOs and other senior management as well as to Boards of Directors.

If you are interested in consulting with Nutanix for a financial modeling engagement, please contact your Nutanix representative or email: [kap@nutanix.com](mailto:kap@nutanix.com).

Not all HCI solutions are the same, and you'll need to evaluate solutions carefully based on your needs and priorities. Each solution must be assessed on a range of factors that should include:

- Ability to scale to meet your needs over a three- or five-year period
- Ease of management
- Integration with the public cloud
- Ability to accelerate the efforts of software development teams
- Total cost of ownership

The tools provided in this guide should help you assess your HCI options versus traditional infrastructure and public cloud providers.

As the HCI pioneer, Nutanix believes it offers the HCI solution that best delivers on the potential and promise of HCI:

- Our fully distributed architecture with data locality out scales both traditional and HCI alternatives
- Integrated, consumer-grade management and advanced automation streamline the management experience and free your team to focus on business priorities
- The Nutanix AHV hypervisor offers a complete virtualization solution that eliminates virtualization licensing costs
- Advanced cloud support enables you to create and efficiently operate hybrid and multi-cloud environments
- Nutanix extends the HCI environment with tools that increase the velocity of your development efforts for both cloud native and traditional enterprise applications

Nutanix Enterprise Cloud OS software melds private, public, and distributed cloud operating environments and provides a single point of control to manage IT infrastructure and applications at any scale. Nutanix solutions are 100% software-based, delivering a full infrastructure stack that integrates compute, virtualization, storage, networking, and security to power any application. Nutanix management tools eliminate the need for specialized IT teams and advanced machine learning technology reduces complex tasks to a single click.

When you're ready to embrace HCI, Nutanix is here to serve as your trusted partner. To learn more about how Nutanix can help modernize your business, contact Nutanix at [info@nutanix.com](mailto:info@nutanix.com), follow us on [Twitter @nutanix](https://twitter.com/nutanix), or send us a request at [www.nutanix.com/demo](http://www.nutanix.com/demo) to set up your own customized briefing.