REGION FOCUS: WORLDWIDE

The Business Value of Nutanix Cloud Platform

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Executive Summary

As enterprises evolve through digital transformation, they are modernizing their information technology (IT) infrastructure to improve performance, agility, availability, and ease of use and lower costs. For many enterprises, this means moving to software-defined infrastructure that has the flexibility to support bare-metal, virtualized, and container-based environments that they will have to support during the digital transformation journey. And the software-defined infrastructures that enterprises are deploying are dominated by hyperconverged infrastructure (HCI). HCI virtualizes compute, storage, and networking resources, allowing them to be configured through software; run on cost-effective commodity hardware that can be on premises, hosted, in the public cloud, or at the edge; and scaled with ease by just adding nodes into a cluster.

Digitally transforming enterprises are less focused, though, on what type of storage architectures they should deploy and more focused on how to address the business requirements needed to keep their companies on a successful, profitable growth path. Software-defined infrastructures like HCI just happen to be particularly good at meeting these requirements in a very cost-effective manner.

Software-defined infrastructures like HCI are widely used for infrastructure modernization. During technology refresh, more than 70% of enterprises have moved workloads from legacy storage area network (SAN) and network attached storage (NAS) systems to HCI, and 56% of them are running mission-critical workloads on it. There is no doubt that HCI platforms can effectively replace legacy hardware-defined approaches for many workloads, and IDC's tracking of vendor shipments indicates that HCI is clearly cannibalizing and impacting the growth of more traditional external storage systems revenue.

Nutanix is a cloud platform provider that enables customers to modernize their datacenters, unify all their clouds, and run any business-critical and other applications at any scale on software-defined infrastructure. The company's flagship infrastructure offering, Nutanix Cloud Platform (NCP), is based on HCI architecture and includes the proven storage management features necessary to run mixed enterprise workloads (including those that are mission critical). With over 22,000 customers large and small across the world in many vertical markets, many enterprises have moved workloads from legacy SAN and NAS

Business Value Highlights

Click each highlight below to navigate to related content within this document.

⬆ **356%** five-year ROI

⬆ **12 months** to payback

⬇ **43%** reduced total cost of operations

⬆ **53%** more efficient IT management

⬇ **36%** reduced infrastructure cost

⬆ **33%** more efficient help desk operations

⬆ **25%** more efficient data protection teams

⬇ **97%** reduction in unplanned downtime

⬆ **$7.6M** in revenue gained or protected annually

⬇ **57,500kg** annual reduction in CO2 due to reduced number of physical servers required

⬆ **16%** more productive application developers

environments to NCP for increased agility and availability, improved ease of use, and better economics.

IDC conducted research that explores the value and benefits for organizations of using NCP, with a particular focus on operational costs, IT agility, and business operations.

Through a series of in-depth customer interviews and a methodology for determining business value, IDC's analysis found that these companies realized significant value from the Nutanix offering with annual average benefits per organization of $5.9 million by:

- Providing an agile, scalable, cost-effective, and high-performing IT platform that served to streamline IT management while unifying compute and storage operations

- Improving the overall productivity of IT infrastructure, help desk, and data protection teams

- Translating these IT agility and operations benefits into better applications development, improved business results, and higher end-user productivity

- Minimizing the effects of unplanned downtime, thereby contributing to greater productivity for business-critical applications and databases

Situation Overview

As enterprises evolve through digital transformation, they are modernizing their information technology infrastructure to improve performance, agility, availability, and ease of use and lower costs. Many enterprises with legacy three-tier architecture IT infrastructures move to more software-defined approaches that offer the advantages that enterprises entering the digital era are looking for. IT infrastructure approaches based on hyperconverged infrastructure are by far the most popular software-defined approaches that are implemented. Indeed, HCI is one of the fastest-growing segments in enterprise storage, driving $12.2 billion in revenue in 2022 and expected to grow at 11.1% over the next two years to hit $14.7 billion in 2024.

Software-defined infrastructure like HCI is much simpler to buy, deploy, manage, and scale than more traditional three-tier architectures; that's one of the reasons the HCI market is growing at roughly double the rate of monolithic storage platforms. It also provides a broader range of easy scalability, allowing enterprises to scale both compute and storage capacity merely by adding nodes. Enterprise HCI can support tens of nodes in a single cluster and hundreds of nodes across multiple clusters, providing a lot of room for simple, nondisruptive expansion.

HCI also supports nondisruptive multigenerational technology refresh, allowing enterprises to expand infrastructure life cycles well beyond the traditional four- to five-year time frame of more traditional SAN architectures for additional economic benefits. And due to its hyperconverged nature, HCI supports much more compact IT infrastructures than the traditional three-tier approaches, resulting in additional energy and floorspace savings. As they refresh legacy storage, more than 70% of enterprises moved workloads from SANs to this kind of software-defined infrastructure, and over 56% of them are running mission-critical workloads on it (source: IDC's January 2022 *HCI Survey*).

Digitally transforming enterprises are less focused, though, on what type of storage architectures they should deploy and more focused on how to address business requirements for hybrid multi-public cloud support, infrastructure agility, performance, and availability needed by consolidated workloads that require bare-metal, virtualized, and container-based environments; flexible scalability; automated operations; and power and cost efficiency. Software-defined infrastructures like HCI just happen to be particularly good at meeting these requirements in a very cost-effective manner.

Over 90% of enterprises are already running hybrid cloud workloads in production. The survey previously cited also revealed that almost 70% of enterprises think that having the same infrastructure across on- and off-premises deployment models is an important consideration in deploying hybrid cloud, and deployment data indicates that HCI is the preferred way to get to this objective. Given that most enterprises will be choosing between three deployment models — traditional on-premises, on-premises private cloud, and public cloud — for the workloads they need to support during digital transformation, having common infrastructure between private and public cloud makes it easier to move workloads between them (which may need to be done to meet differing requirements during an application's life

cycle). It can also make it easier to manage on- and off-premises workloads through a unified dashboard that provides a consistent set of infrastructure management capabilities.

Many enterprises use on-premises HCI as an on-ramp to the public cloud. Legacy workloads can be "lifted and shifted" into virtual machines (VMs), making it much easier to migrate them to the cloud if and when that becomes necessary. It also simplifies other operational tasks, such as scaling infrastructure or establishing disaster recovery (DR) solutions, that IT may need to perform. In addition to supporting better economics, on-premises software-defined infrastructure of this type opens up many more workload deployment options than legacy hardware-defined infrastructure can support as well.
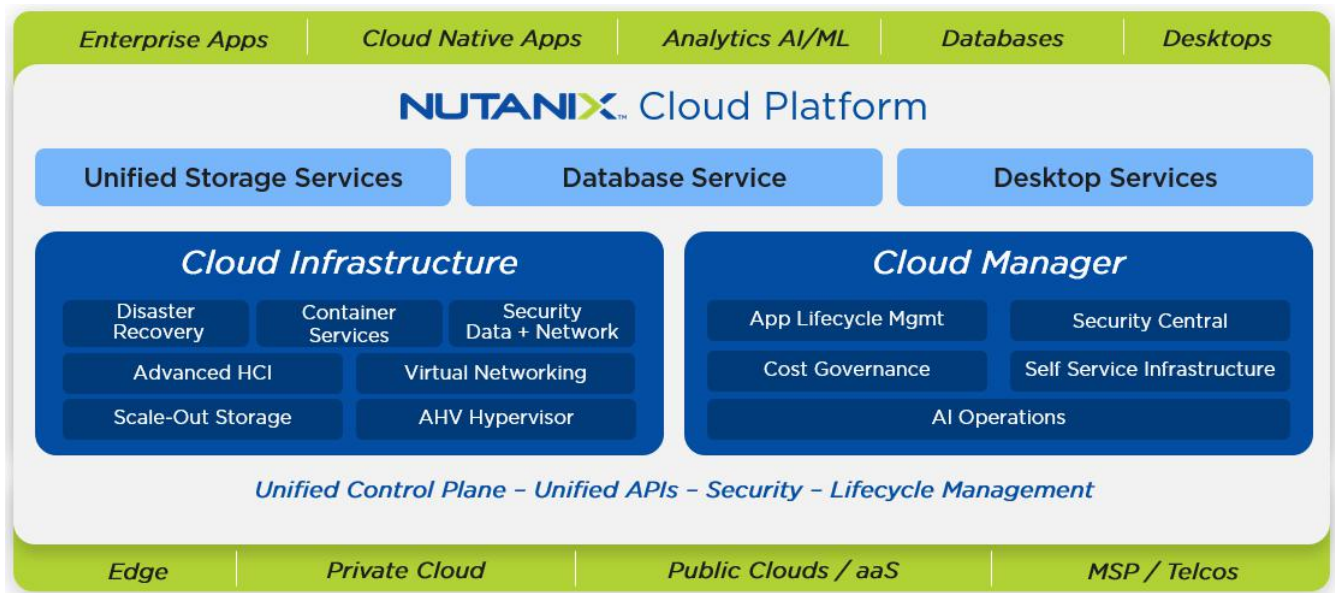
Overview of Nutanix Cloud Platform

Nutanix is a proven vendor of software-defined infrastructure with over 22,000 customers and is viewed as a provider of hybrid cloud infrastructure that meets enterprise requirements. The vendor's flagship offering, NCP, is a unified IT operating environment that integrates private cloud, public cloud, and distributed cloud resources, thereby providing a single point of control for managing enterprise infrastructure and applications. NCP, which is based on an HCI architecture, is designed to deliver a consistent and high-performing experience for both cloud operators and consumers of cloud-delivered services and applications. The vendor has established an excellent reputation for itself for both ease of use and for delivering industry-leading customer experience. Nutanix has the highest consistently published Net Promoter Score (NPS) in the enterprise storage industry, consistently turning in NPS scores in the low 90s for the past seven years.

NCP is software-defined infrastructure that supports significant deployment flexibility both in on-premises locations and in public cloud infrastructure. The whole point to this flexibility is to make it the single platform used to host and meet the requirements for all types of enterprise workloads, providing a consistent set of capabilities and workflows across all NCP instances through Prism Central (which is the vendor's unified management interface spanning all deployment models). By pioneering the concept of "one-click operations," Nutanix greatly simplified common infrastructure management tasks, and their ease of use has been a major contributor to the vendor's industry-leading NPS score. With the NC2 (Nutanix Cloud Clusters) capability, the vendor has extended one-click simplicity to workload mobility between private cloud environments and public cloud environments.

NCP customers can choose from the broadest set of deployment options in the industry including server-based storage hardware from Cisco, Dell, Fujitsu, HPE, Lenovo, Supermicro, and others; datacenter, edge, service provider/telco, and public cloud environments (a Nutanix software-only deployment); and bare metal, hypervisors from VMware, Microsoft, and Nutanix themselves (the built-in AHV hypervisor), Kubernetes-based containers, and mixed

media options (NVMe, all-flash, hybrid, hard disk drive [HDD] only) at the node level. NCP supports unified storage, enabling the configuration of block-, file- and/or object-based storage pools within NCP clusters that support a variety of access methods (iSCSI, NFS, SMB, S3, etc.). Data protection options for local and/or disaster recovery are built into NCP, and the vendor provides integrated full-stack software solutions for additional datacenter, DevOps, database, and virtual desktop and app (virtual desktop infrastructure (VDI)/desktops as a service (DaaS)). **Figure 1** indicates the breadth of workload types that enterprises can consolidate onto NCP.

FIGURE 1

Nutanix Cloud Platform

Source: Nutanix, 2022

The Business Value of Nutanix Cloud Platform

Study Demographics

IDC conducted research that explored the value and benefits of using NCP to manage cloud infrastructure and applications. The project included eight interviews with organizations that were using NCP. Interviewed managers all had experience with and knowledge about its benefits and were asked a variety of quantitative and qualitative questions about its impacts on their IT operations, core businesses, and costs.

Table 1 presents study demographics. The organizations that IDC interviewed had an average base of 14,682 employees, including several large companies. On average, this workforce was supported by an IT staff of 836 engaged in managing 421 business applications. In terms of geographical distribution four companies were based in the United States, with the remainder in Australia, Brazil, South Africa, and the United Kingdom. A variety of vertical markets were represented, namely, the financial services (2), healthcare (2), education, government, insurance, and food and beverage sectors.

TABLE 1

Firmographics of Interviewed Organizations

	Average	Median	Range
Number of employees	14,682	10,000	105 to 46,000
Number of IT staff	836	400	12 to 3,000
Number of business applications	421	338	10 to 1,500
Revenue per year	$3.54B	$1.27B	$50.0M to $11.5B
Countries	United States (4), Australia, Brazil, South Africa, United Kingdom		
Industries	Financial services (2), healthcare (2), education, government, insurance, food and beverages		

Source: IDC's Business Value Research, June 2022

Selection and Use of Nutanix Cloud Platform

The organizations that IDC interviewed described typical patterns for their use of NCP. They also discussed the rationale for choosing it as an optimal means of managing cloud-based infrastructure and applications. Interviewed companies stressed the need for having a robust future-proof infrastructure offering a scalable architecture providing high-availability services and increased uptime. They commented on the need for an ability to accommodate newer technologies as they became available so that these organizations could extend the infrastructure life cycle and achieve better economics. The benefit of reduced total cost of ownership (TCO) coupled with lower opex requirements was also cited.

Study participants made detailed comments on these benefits:

Strong relationship with Nutanix, better performance:
"The main reason we were looking for a new solution was that we wanted to move to a more simplified, more scalable architecture, and we wanted utility-based high availability services leading to increased uptime. There were two key drivers for picking Nutanix. Because we were making a significant investment, we wanted a true partnership with it as our supplier and felt we could achieve this with Nutanix. And perhaps most importantly, it offered an entire packaged solution from hardware all the way through to the software."

Build a more robust future-proof infrastructure:
"The catalyst was we needed a much more robust infrastructure. At the time, we had 10 hand-me-down hosts in a second datacenter. I was building a bank of the future, and one of my requirements was to be able to deploy any technology past, present, and yet to be invented. It's a pretty tall order, but there is no technology in my bank that you cannot deploy because of our infrastructure."

Investment made financial sense:
"We were looking for a more modern way to deploy our infrastructure. Specifically, we wanted to see if we could streamline the storage aspect of it. Moving to Nutanix, which is based on a hyperconverged architecture, was an attractive model to condense our datacenter and also address the age-old problem of maximizing our infrastructure life cycle, which can be very difficult when you're using monolithic storage platforms that can be difficult to upgrade to newer technologies as they become available."

Reduced TCO, lower opex:
"We were looking for an HCI provider that catered specifically to the end-user space. We picked Nutanix because of the total cost of ownership, having a single pane of glass from a management perspective, and lower opex requirements to run the platform. In terms of lower opex, we were comparing with traditional three-tier solutions, and Nutanix was less by millions of dollars. It was probably a 20% savings."

Table 2 (next page) provides a snapshot of NCP usage and the IT environments of interviewed companies. On average, there were 253 business applications and 354 virtualized databases in play, used by 12,136 end users. In addition, NCP supported a very substantial portion of the revenue base of interviewed companies (91%). Additional metrics are presented.

TABLE 2

Organizational Usage of Nutanix Cloud Platform

	Average	Median
Number of datacenters	2	2
Number of countries supported	3	1
Number of sites/branches	73	8
Number of nodes	141	140
Number of VMs	2,488	800
Number of terabytes (TB)	1,677	1,575
Number of apps (not including VDI applications)	253	313
Number of business users	12,136	4,500
Number of virtualized databases	354	200
Revenue supported by applications	91%	93%

Source: IDC's Business Value Research, June 2022

Business Value and Quantified Benefits

IDC's Business Value methodology evaluated and quantified the benefits for companies that have adopted NCP as the core of their IT infrastructure. For interviewed companies, the advantage of using an agile, scalable, cost-effective, and high-performing IT platform to streamline IT management and unify compute and storage operations was clear and apparent. These companies were able to improve the productivity of their IT teams including infrastructure, help desk, and data protection after deploying NCP. These IT platform benefits then translated downstream into better application development, improved business results, and higher user productivity for interviewed companies. In addition, they found that they were able to minimize the effects of unplanned downtime, thereby contributing to greater productivity for business units.

Study participants highlighted these and other significant benefits:

Cost benefits for running workloads on Nutanix:
"Financially, Nutanix has a competitive offering as it relates to public cloud. We looked at the TCO to run a lot of our enterprise workloads, which I consider non-cloud-native workloads because we don't turn them on and off or we don't scale them. It's like every application gets a handful of servers and they're always on. We find that it is much more economical to run it on Nutanix."

Always-on infrastructure means a better customer experience:
"It is always-on infrastructure. Now that we're on NCP, none of the users of any of our applications can even remotely point to the infrastructure as the bottleneck causing performance issues. For example, our customer statements hadn't been released in under 20 hours for the past 10+ years. That meant if you were a business customer of the bank and wanted to check your statements the next morning, you waited 20 hours, which meant you never got your statements on the first business day of the month. We now produce statements in one hour and 40 minutes on Nutanix."

Ease of IT management:
"From an IT perspective, one of the big benefits is the ease of use. Nutanix does cut operation costs due to efficiency, management, and business process. It also reduces lots of management overhead; so one FTE can handle maybe 10x more compared with what we'd seen with three-tier architectures. And built into the platform, there are ways to help keep your infrastructure more consistent and up to date. We use LCM for all the patching, and it's one of the deep, dark secrets that a lot of infrastructure teams don't want to talk about, like firmware patching–it's not one of the most exciting things to do. A lot of organizations fall behind, and prior to Nutanix, we were in that camp too. Ever since we switched to Nutanix, over the past five years we've been able to stay on top of that just because–it's so much easier to roll it out. You don't need custom platforms to talk to the various infrastructure."

Better performance:
"End users are seeing increased uptime from having a more reliable infrastructure and by making sure that there's less downtime for critical systems. With hyperconverged, having a lot of high availability and redundancy built in is helpful. We've also got a Nutanix DR site as well in our datacenter that's managed by Nutanix."

Based on interviews with these eight NCP customers, IDC quantified that the value study participants will receive average annual benefits of $5.9 million over five years (see **Figure 2,** next page). IDC further calculated these benefits at $13,700 per business application and $48,600 per 100 users.

> Now that we're on NCP, none of the users of any of our applications can even remotely point to the infrastructure as the bottleneck causing performance issues."

FIGURE 2

Annual Average Benefits per Organization

($)
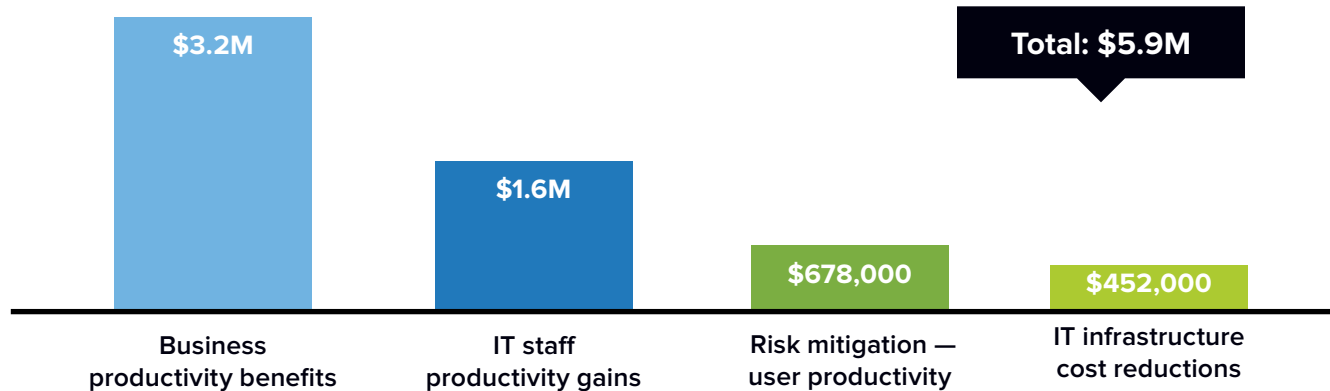
n = 8; Source: IDC's Business Value Research, June 2022

Improved Cloud-Based IT Infrastructure

The IT infrastructure market has been on a path of rapid change. Priorities have shifted from discrete compute and storage infrastructure silos to a broader set of requirements around cloud computing and accompanying forms of infrastructure modernization. Infrastructure builds are now trending toward highly automated, cloud-based, and software-defined approaches using hyperconverged technology. Breaking down silos of discrete compute and storage resources and then scaling out to create a distributed system serves to streamline infrastructure management and operations.

NCP is designed to help companies meet these challenges. In their in-depth comments to IDC, interviewed organizations identified the core benefits that NCP brought to their organizations. They cited the advantage of being able to use a single interface for capacity planning and called out ease of use, speed, and scalability as core benefits. In addition, study participants noted that, with this operational streamlining, they no longer had to rely on storage, network, and VMware teams for support. They also noted that the solution significantly improved their datacenter footprint with the end result of having a more cost-effective infrastructure.

Study participants commented in detail on these and other benefits:

Easier management of infrastructure:

"Our IT people are a lot happier. It's because it's a tremendously easy product to use and has also given them the opportunity to broaden their own skill sets by upskilling. We have Prism Central and Prism Pro, which is basically all centralized management. There's a single interface that controls them all. You can do capacity planning with it and get broad visibility across your entire infrastructure regardless of whether it's on premises or in the cloud."

Reduced need to expand IT operations:

"The benefit is the ease of adding to clusters and expanding IT support. We need that ease of support because we took all of that in hand and handle support tasks with the same people. We have the same five people looking at the firmware, the Citrix resources, and the VMware environment — all of which run on NCP. So ease of use, speed, and scalability are why we went for it. We no longer have to rely on storage teams, network teams, and VMware teams to support us …. Nutanix is easy to use, easy to maintain, and easily scalable."

Cost-effective infrastructure capacity:

"Before, we had all of the 400 apps on a traditional three-tier setup, and that's pretty much all gone now. We reduced the datacenter footprint by about 48%. If we were doing this with three tiers, we'd have much more than the 120 nodes that we have now. I'd say that if we were replicating with a standard architecture, we'd be looking at more like 600–700 servers. That would be much more than we paid for Nutanix because you'd have to have all the associated plumbing."

IT staff can support a hybrid cloud setup:

"We have six different plant locations that have Nutanix and we need only one full-time person to support and manage all of those. In my team we have to wear several hats, and because Nutanix helped us have a hybrid cloud setup, we now have a different kind of SME focus. They [our staff] can cover more so we can help our company do more business and we can implement more projects."

Time freed up to focus on more strategic tasks:

"Our IT staff are moving on to business-oriented projects, like digital transformation. They're doing things like infrastructure design. Basically, they are doing less of the day-to-day [management tasks] and they are actually considering things like design and architecture."

> Our IT people are a lot happier. It's because it's a tremendously easy product to use and has also given them the opportunity to broaden their own skill sets by upskilling.

As can be seen from these qualitative comments, interviewed companies found that NCP offered numerous built-in features and functionality that made it easier for IT teams to manage infrastructure. IDC evaluated the specifics of how the platform boosted IT infrastructure staff productivity.

As shown in **Table 3,** after adoption, average team productivity increased significantly (53%), which means these teams of 9.4 FTEs were able to free up about 5 FTEs to work on other strategic projects and other tasks. These improvements translated into an average annual salary savings of $497,700 for each organization.

TABLE 3

IT Infrastructure Management Staff Impact

	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
IT infrastructure management — FTE equivalent per organization per year	9.4	4.5	5	53%
Equivalent value of staff time per year	$943,800	$447,100	$497,700	53%

Source: IDC's Business Value Research, June 2022

Study participants identified other improvements, such as enhanced agility, that better supported their business efforts. Organizations were able to scale up their servers, storage, and VMs more efficiently with Nutanix. This increased agility enabled higher-value development activities and ensured that IT organizations could better respond to business needs and fluctuating demand.

Table 4 (next page), quantifies these impacts. The average time needed to deploy new storage was reduced 64%. Average staff time required per server deployment was reduced 63% while average time per VM deployment was reduced 38%. Additional metrics are presented.

TABLE 4

IT Agility Impact

	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
New storage and storage upgrade deployment				
Average time per new storage deployment (hours)	4.8	1.7	3.1	64%
Average staff time required per new storage resource deployment (hours)	3.7	1.9	1.7	48%
Average time per upgrade (days)	0.8	0.5	0.2	32%
New server node deployment				
Average staff time required per server deployment (hours)	5.0	1.8	3.1	63%
Average time per hypervisor upgrade (hours)	3.8	1.0	2.8	75%
New VM deployment				
Average time per VM deployment (hours)	6.8	4.2	2.6	38%
Average staff time required per VM deployment (hours)	1.8	1.3	0.6	31%

Source: IDC's Business Value Research, June 2022

Study participants reported that due to improved application performance, there were fewer infrastructure-related help desk issues for IT teams to handle. As shown in **Table 5** (next page), after adoption, the number of calls to the help desk decreased by 27%. When problems did occur, they were able to be resolved 8% faster. These improvements translated into a 33% time savings for help desk staff, which equates to an average annual business value of $834,200 for each organization.

TABLE 5

Help Desk Impact

	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
Number of support calls per week	299.3	217.4	81.9	27%
Average time to resolve in total (hours)	3.0	2.8	0.3	8%
Total number of help desk FTEs needed	25.0	16.6	8.3	33%
Staff time cost per year	$2.50M	$1.66M	$834,200	33%

Source: IDC's Business Value Research, June 2022

Data protection was identified as another key area where Nutanix provided added value. NCP has built-in disaster recovery and protection software, which makes it easier for IT teams to handle any issues that arise. As one study participant noted, *"We restored hundreds of servers in minutes. We did a recovery test with 20 servers, and it took less than two minutes. Nutanix snapshots have that layer built in. If that were to be compromised or maybe we missed a snapshot because of some other dependency, we've got all kinds of alternatives. We can recover data in either of our datacenters as quickly as five seconds."*

Table 6 (next page), quantifies these impacts. After adoption, interviewed companies saw a 25% productivity boost. This translated into an annual productivity-based business value of $87,900 for each organization.

TABLE 6

Data Protection Staff Impact

|	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
Data protection management — FTE equivalent per organization per year	3.6	2.7	0.9	25%
Equivalent value of staff time per year	$356,300	$268,300	$87,900	25%

Source: IDC's Business Value Research, June 2022

IDC drilled down further on data protection benefits. Organizations told IDC that there were significant time savings associated with various data protection and data recovery activities. As shown in **Figure 3**, after adopting Nutanix, data protection operations were improved by 60%. In addition, data recovery activities were improved 39%.

FIGURE 3

Data Protection Activities Improvements
(% improvement)

Data protection activities.   60%

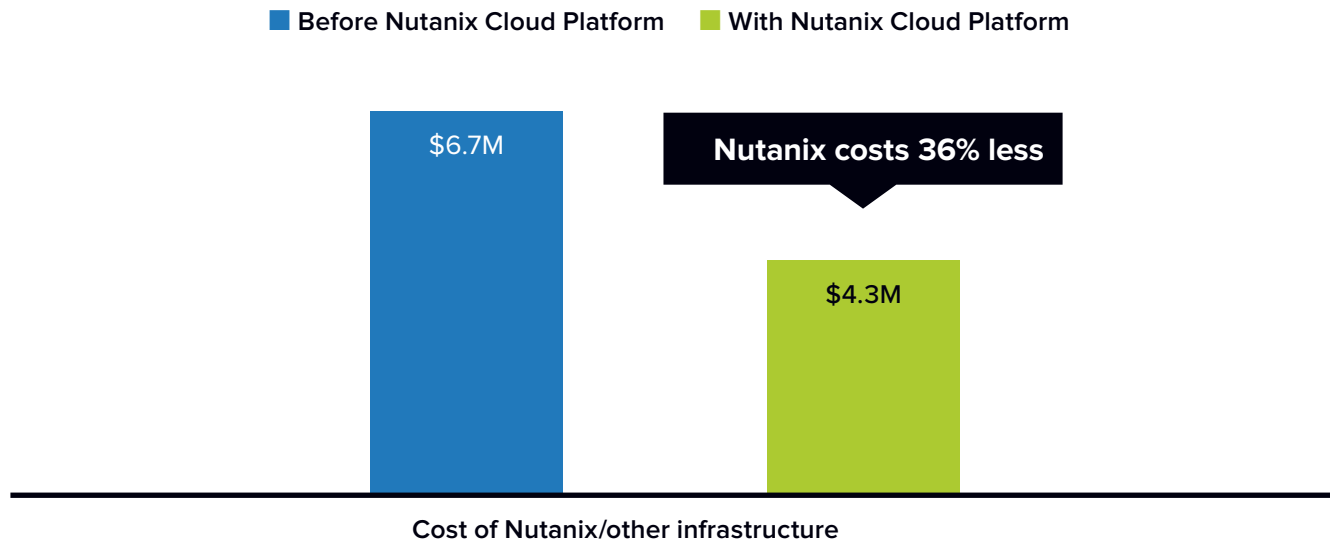Data recovery activities.   **39%**
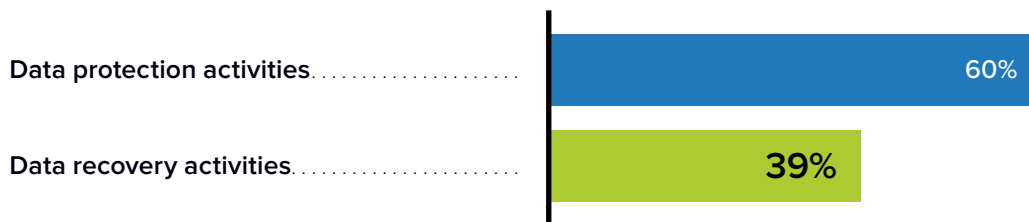
Source: IDC's Business Value Research, June 2022

Organizations noted that they were cutting their infrastructure costs by at least a third by retiring physical equipment and reducing licensing. **Figure 4** (next page) shows that organizations were able to reduce their cost by 36%, or about $2.4 million, over five years.

FIGURE 4

Five-Year IT Infrastructure Savings

($)

■ Before Nutanix Cloud Platform   ■ With Nutanix Cloud Platform

$6.7M

Nutanix costs 36% less

$4.3M

**Cost of Nutanix/other infrastructure**

Source: IDC's Business Value Research, June 2022

By deploying NCP, organizations were able to reduce their infrastructure cost partially by reducing the number of physical servers they need to purchase, host, and manage. They were also able to reduce the number of physical servers they needed to deploy by, on average, 61. This physical server reduction would also have an impact on these organizations' carbon footprint, which is of increased importance for a number of organizations. IDC calculates that these organizations were seeing a net average reduction of 57,500kg of carbon dioxide (CO_2) per year as a result just from the reduced number of servers.

Overall, organizations reduced their cost of operations for their infrastructure by 43% over five years because of improved management capabilities and reduced infrastructure costs, as shown in **Figure 5** (next page).

FIGURE 5

Five-Year Cost of Operations
($)
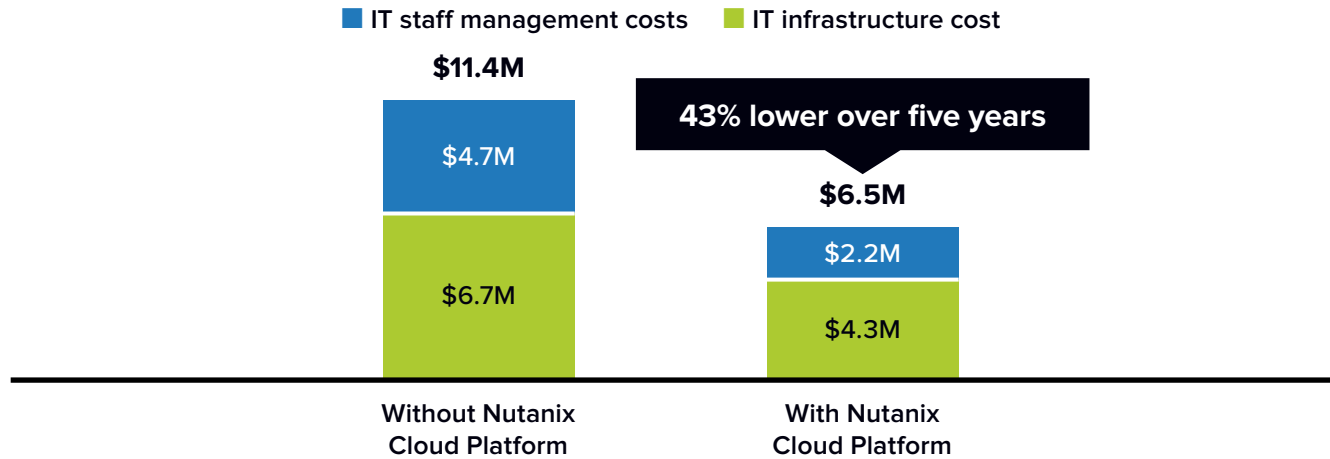
Source: IDC's Business Value Research, June 2022

Business Improvements

The companies that IDC interviewed reported that the improvements enabled by NCP also offered positive downstream impacts on their business operations and results. They appreciated that having more agile IT teams and agility for storage and compute resources translated into improved business operations and offerings. Study participants called out the advantages of having more agile application development teams and having end users that experienced better and faster performance. The benefit of application programming interface (API) integration was also noted.

They elaborated on these benefits:

The business has the infrastructure it needs:
"Now we operate at the speed of business, and that is a changing target. We outperform any expectation of any employee. There's no technology that's been invented that we can't run."

Application developer teams are more agile:
"Our application developers are more agile and responsive to business demand. This is because deployment is faster and easier. Since we're using NCP, you don't have to interact with multiple layers, and we have the API integration."

Users see better performance:
"Our end users are seeing less impact from changes we make, less impact from maintenance, and better performance as a result of both the switch to an HCI architecture and the newer hardware it's using. We're able to quickly stand up additional infrastructure to handle growth or accommodate merger and acquisition (M&A) activities. For example, M&A activities can

drive pressing day 1 requirements to quickly stand up payroll and benefits systems, and Nutanix gives us the agility to respond quickly for these types of things. And during regular operation, we don't get application performance complaints anymore."

IDC then looked at impacts on unplanned downtime. Business resiliency is critical in today's volatile environments, including the need to manage unplanned downtime to a minimum. NCP reduced unplanned downtime by 97%. For end users and customers, this translated into improved digital experiences along with improved access to business applications and services. As one study participant noted: *"This software-defined architecture really improves the customer experience our end users get. It supports self-service, we can automate everything, and it monitors itself. The uptime dramatically impacts our support resources and I feel comfortable redirecting them to the other areas."*

Table 7 quantifies post-deployment benefits. The number of annual unplanned outages was significantly reduced (86%) while remediation efforts took 76% less time to complete. In addition, end users experienced a 97% reduction in the annual number of hours lost to unplanned events. IDC calculated the annual productivity business value related to minimizing unplanned downtime at $704,600.

TABLE 7

Unplanned Downtime Impact

	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
Frequency per year	6.5	0.9	5.6	86%
Time to resolve (hours)	5.4	1.3	4.1	76%
Hours of lost productivity time per employee per year	1.6	0.1	1.5	97%
FTE impact — lost productivity due to unplanned outages	10.4	0.3	10.1	97%
Value of lost productivity per year	**$728,900**	**$24,400**	**$704,600**	**97%**

Source: IDC's Business Value Research, June 2022

NCP also helped organizations reduce the amount of revenue lost due to poor performance and outages. This reduction in operational risk had direct impacts on key business operations and resulting revenues. As a result, and as shown in **Table 8**, Nutanix customers received total average additional revenue per year of $250,000.

TABLE 8

Unplanned Downtime Impact

	Per Organization
Risk mitigation — Unplanned downtime revenue impact	
Total additional revenue per year	$250,000
Assumed operating margin	15%
Total recognized revenue — IDC's Business Value model, per year	$37,500

Source: IDC's Business Value Research, June 2022

Application development teams are tasked with delivering highly usable software that supports their businesses. NCP provided development teams more capacity and easier, more reliable operations due to the automation — that is, the API integration — they were able to leverage for their day-to-day tasks and operations.

Table 9 quantifies these impacts. After adoption, development teams experienced a 16% productivity boost. This amounted to the equivalent of adding 3.2 FTEs and resulted in an annual productivity-based business value of $320,300 for each organization.

TABLE 9

Application Development Staff Impact

	Before Nutanix Cloud Platform	With Nutanix Cloud Platform	Difference (FTEs)	Benefit
FTEs per year per organization	19.8	23.0	3.2	16%
Application development productivity value per year ($ per organization)	$2.0M	$2.3M	$320,300	16%

Source: IDC's Business Value Research, June 2022

IDC then looked at how Nutanix affected end-user productivity. Users were more productive because of improved application performance and IT resource agility. As shown in **Table 10**, these improvements resulted in an average annual productivity-based business value of $2.4 million for each organization.

TABLE 10

Enhanced User Productivity

	Per Organization
Number of users impacted	1,593
Average productivity gains	2%
Productive hours gained per organization	63,786
Productive hours gained per user	5.30
End-user impact — FTE equivalent per organization per year	33.90
Value of end-user time	$2.4M

Source: IDC's Business Value Research, June 2022

NCP is helping organizations keep up with business needs, which helps them capture more revenue. **Table 11** quantifies these revenue impacts using IDC's Business Value methodology. The total average annual revenue projected with the use of NCP is $7,392,000 per organization and $17,200 per business application.

TABLE 11

Revenue Impact

	Per Organization	Per Business Application	Per 100 Users
Business impact — Revenue from better addressing business opportunities			
Total additional revenue per year	$7,392,000	$17,200	$60,900
Assumed operating margin	15%	15%	15%
Total recognized revenue — IDC's Business Value model, per year	$1,109,000	$2,600	$9,100

Source: IDC's Business Value Research, June 2022

ROI Summary

Table 12 presents IDC's return on investment (ROI) analysis for study participants' use of NCP. IDC projects that interviewed companies will achieve five-year discounted benefits worth an average of $20.9 million per organization through improved business operations and IT team/end-user productivity gains as described. These benefits compare with total five-year discounted costs of $4.6 million per organization. These levels of benefits and investment costs are projected to result in an average ROI of 356% with a break-even point occurring in 12 months.

TABLE 12

Five-Year ROI Analysis

	Per Organization	Per Business Application	Per 100 Users
Benefit (discounted)	$20.9M	$48,600	$171,900
Investment (discounted)	$4.6M	$10,700	$37,700
Net present value (NPV)	$16.3M	$37,900	$134,200
ROI (NPV/investment)	356%	356%	356%
Payback (months)	12 months	12 months	12 months
Discount factor	12%	12%	12%

Source: IDC's Business Value Research, June 2022

Challenges/Opportunities

While Nutanix has a healthy and rapidly growing installed base, some enterprises picture VMware first when they think about virtual infrastructure. The two vendors are the undisputed market leaders in the HCI space, and Nutanix was in fact bringing production-ready HCI to market slightly earlier than VMware. Nutanix also pioneered the concepts of one-click operations, broader deployment flexibility, and unified storage in the software-defined infrastructure markets and has run away with the "gold" medal for customer experience (as measured by NPS) against not only HCI vendors but all other enterprise storage vendors — period. There are some markets, like virtual desktop infrastructure, where Nutanix has the number 1 market share by revenue. With its excellent support for hybrid cloud operations and a proven enterprise-class feature set, lack of awareness about what NCP offers for a digitally transforming world may be the only factor holding the vendor back.

Conclusion

There is a reason why software-defined infrastructure like HCI is regularly cannibalizing external storage systems sales as enterprises modernize their IT infrastructure: it provides better agility to accommodate hybrid multicloud operations, is much easier to manage and scale, provides much better deployment flexibility and availability, and delivers better economics. And the economic value proposition is compelling — this business value study indicates that Nutanix customers using the vendor's NCP software-defined infrastructure reduced IT costs by $5.9 million annually, experienced a 356% five-year ROI, and made their IT management, help desk, data protection, and developer operations noticeably better. This business value study also notes and quantifies other benefits of NCP deployment: a 97% reduction in unplanned downtime, an additional $7.6 million in revenue gained annually, and a major reduction in carbon footprint (due to the efficiencies of NCP-based infrastructure).

Appendix: Methodology

IDC's standard Business Value/ROI methodology was utilized for this project. This methodology is based on gathering data from organizations currently using NCP as the foundation for the model.

Based on interviews with organizations using NCP, IDC performed a three-step process to calculate the ROI and payback period:

1. **Gathered quantitative benefit information during the interviews using a before-and-after assessment of the impact of using NCP.** In this study, the benefits included security staff time efficiencies, development productivity gains, reduced costs associated with risk, and higher revenue.

2. **Created a complete investment (five-year total cost analysis) profile based on the interviews.** Investments go beyond the initial and annual costs of using NCP and can include additional costs related to migrations, planning, consulting, and staff or user training.

3. **Calculated the ROI and payback period.** IDC conducted a depreciated cash flow analysis of the benefits and investments for the organizations' use of NCP over a five-year period. ROI is the ratio of the NPV and the discounted investment. The payback period is the point at which cumulative benefits equal the initial investment.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For purposes of this analysis, based on the geographic locations of the interviewed organizations, IDC has used assumptions of an average fully loaded salary of $100,000 per year for IT staff members and an average fully loaded salary of $70,000 per year for non-IT staff members. IDC assumes that employees work 1,880 hours per year (47 weeks x 40 hours).

- The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.

- Because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

Note: All numbers in this document may not be exact due to rounding.

About the IDC Analysts

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Harsh V. Singh is a senior research analyst for IDC's Business Value Strategy Practice, responsible for developing return-on-investment and cost-savings analysis on enterprise technological products. Harsh's work covers various solutions that include datacenter hardware, enterprise software, and cloud-based products and services. Harsh's research focuses on the financial and operational impact these products have on organizations that deploy and adopt them.

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Ashish Nadkarni is Group Vice President within IDC's Worldwide Infrastructure Practice. He leads a team of analysts who engage in delivering qualitative and quantitative research on computing, storage, and data management infrastructure platforms and technologies, via syndicated research programs (subscription services), data products (IDC Trackers), and custom engagements. Ashish's vision for his team is to take a holistic, forwarding-looking, and long-term view on emerging as well as established infrastructure-related areas in the datacenter, in the cloud, and at the edge. His core research starts with an objective assessment of heterogeneous, accelerated, fog, edge, and quantum computing architectures, silicon, memory, and data persistence technologies, composable and disaggregated systems, rackscale design, software-defined infrastructure, modern operating system environments, and physical, virtual, and cloud computing software. It is complemented by research on current and next-gen applications and workloads, vertical and industry-specific use cases, emerging storage and server form factors and deployment models, and upcoming IT vendors. Ashish also takes a keen interest in tracking the ongoing influence of open and open- source communities like OpenStack and Open Compute Project on infrastructure.

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