

The Business Value of Hybrid Citrix Infrastructure



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Executive Summary

IT infrastructure continues to grow ever more complex, with a dispersed ecosystem of digital resources required to execute digital business operations. Equally, a simple fault or a malicious attack can bring this ecosystem to a halt, as seen in both the CrowdStrike error in July 2024 and the ransomware attacks on the U.S. healthcare system in early 2024. IT organizations face the challenge of securing and normalizing this fragile ecosystem and presenting it to users as a coherent digital workspace so that they can get their work done.

Hybrid infrastructure management platforms, such as those that Citrix provides, are a key tool for meeting this challenge. They allow the organization to selectively control resources, organize and present capabilities, and recover quickly from both structural and security events. These same capabilities translate into the ability to organize the digital workspace so that users can focus on things other than looking for the right application.

However, providing these capabilities in a way that requires extensive and expensive human intervention does not meet the needs of the moment. IDC continues to project a worldwide shortage of experienced IT operations and support staff until at least 2030. Management platforms must therefore also allow the organization to move the remaining staff to meet new challenges, such as those that new AI initiatives and new forms of digital business create.

IDC evaluated the impact for organizations of establishing a Hybrid Citrix Infrastructure by moving certain applications and workloads to a Citrix public cloud environment while leaving others in an on-premises Citrix environment. Interviewed Citrix customers reported achieving significant cost, operational, and business benefits through the implementation of a Hybrid Citrix Infrastructure. They reported not only better addressing the needs of their hybrid- and digital-based businesses but also optimizing the costs of running these environments.



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BUSINESS VALUE HIGHLIGHTS

370%
three-year ROI

13 months
to payback

44%
lower infrastructure
and solution costs

35%
more efficient
infrastructure
management

41%
lower three-year cost
of operations

99%
faster to deploy new
compute capacity

72%
less unplanned
downtime

17%
higher employee
productivity, improved
accessibility of
virtualized resources

Based on these interviews, IDC calculates that interviewed Citrix customers will achieve yearly benefits worth an average of \$10.29 million per organization (\$55,300 per 100 users) by:

- **Optimizing infrastructure and solution costs** by better tying procurement and use to actual business needs and leveraging cost-effective cloud capacity for disaster recovery (DR) environments
- **Enabling IT teams to work more efficiently** using automation and other capabilities available with public cloud infrastructure and establishing a more streamlined, unified virtualized desktop and application environment
- **Delivering new capacity and providing users with new virtualized desktops and applications** with greater agility and flexibility
- **Providing a stronger user and customer experience**, which results in higher employee productivity levels and increased revenue

Situation Overview

For years, the IT industry has spoken about the “cloud journey” as if it were an inevitable progression from the fossilized remains of mainframe and on-premises servers to the glorious freedom of renting compute. The reality has proven both messier and more useful, with applications, data, and workloads scattered across the edge, datacenters, hosted clouds, private clouds, and public clouds of varying capabilities. Subscription applications, such as software as a service, provide significant portions of organizations’ operational capabilities, while some key capabilities remain tightly controlled.

The cloud journey is not a one-way street to a final destination but rather a dynamic operating model in which the enterprise constantly evaluates core and non-core business, digital, and technical functions. The evaluation criteria include finance, materiality in delivering services, security, talent availability, and technical resource accessibility. The time frame can vary from a single second to decades, and the requirements may be both fixed and variable in terms of implementation.

This operating model brings with it an extremely complex infrastructure that changes on a daily, weekly, monthly, yearly, and decadal cadence. That infrastructure, spread out in a geographically dispersed hybrid of internal and external providers to create a digital ecosystem, provides the technical capabilities required to operate digital businesses. Those capabilities must be somehow organized into a “digital workspace,” which enables human beings to interact with the capabilities and get work done.

Traditionally, increasingly skilled and experienced IT professionals addressed the work of both organizing this workspace and executing on the operating model. However, as IDC revealed in the *xOps Census and Forecast, 2022–2027* (May 2023), the non-developer IT population writ large is not growing fast enough to meet the demand. In fact, in areas such as IT operations and support, it is shrinking rapidly, with as many as 8 million operations and support jobs being unfillable as early as 2027.

Organizations have shifted focus from digital transformation and operations to AI enablement, with a focus on various forms of generative and predictive AI. Over 50% of companies are already deploying these technologies in production contexts, with most of the remainder planning investments in 2024 (*Future of Enterprise Resilience Survey, Wave 4, April 2024*).

Combined, this shrinking human talent pool and expanding need for new business approaches suggest that CIOs across the globe need to refocus their remaining IT staff on something other than workspace presentation. Yet, in a digital business, the digital workspace may well be the employees' only connection to the larger organization. This creates a conundrum — how do we balance the cloud operating model, the need to deploy radically new capabilities, and the talent shortage with the imperative of creating a compelling “digital employee experience (DEX)”?

Hybrid Citrix Infrastructure

Citrix has addressed these needs through its products for over 30 years.

Today, the Citrix Platform brings those solutions together, providing the following hybrid infrastructure management capabilities:

- **Automation and observability (AIOps for EUC):**

The platform provides behavioral, operational, and predictive analytics, offering insights into performance, usage patterns, and potential security threats.

- **Unified workspace management:**

The platform coordinates the management of applications and desktops across on-premises, cloud, and hybrid environments, incorporating scalability, instant recovery, and zero trust security by design.

- **Optimized performance:**

The platform and associated streaming protocols allow the system to dynamically adapt to the security and infrastructure environment, optimizing within administrator-defined boundaries to deliver an optimized end-user experience.

- **DEX management:**

Users can tune the platform's ability to optimize performance to personalize the digital employee experience, improving productivity and satisfaction by tailoring the experience to individual needs and preferences.

- **Hybrid infrastructure cost management:**

The fine-tuning that AIOps for EUC and DEX enables, along with the unified workspace management and performance optimizations, allows the administrator to closely control costs across the entire hybrid digital estate (datacenter, edge, and public cloud).

By implementing these solutions through a variety of opinionated architectures, the Citrix hybrid infrastructure platform can adapt to a range of situations, providing value where it is most required.

The Business Value of Hybrid Citrix Infrastructure

Study Demographics

IDC conducted in-depth interviews with IT managers and executives at organizations that have established Hybrid Citrix Infrastructures to understand the incremental impact of moving virtualized desktops and applications to a Citrix public cloud environment. The interviews aimed to understand both the quantitative and qualitative impacts for Citrix customers of having a Hybrid Citrix Infrastructure.

Table 1 (next page) presents the firmographics of the Citrix customers interviewed for this study. As shown, they were generally large organizations in terms of the number of employees (22,900 on average, 7,750 median) and annual revenue (\$31.72 billion on average, \$1.65 billion median). They provided perspectives about the impact of having a Hybrid Citrix Infrastructure from varied industry verticals, including the government, healthcare, hospitality, manufacturing, professional services, and telecommunications sectors. For additional information about study participants, see **Table 1** (next page).

TABLE 1
Demographics of Interviewed Organizations

	Average	Median
Number of employees	22,900	7,750
Number of IT employees	1,957	360
Number of business applications	925	133
Revenue per year	\$31.72B	\$1.65B
Countries	United States	
Industries	Government, healthcare, hospitality, manufacturing, professional services, telecommunications	

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Choice and Use of Hybrid Citrix Infrastructure

Study participants decided to move virtualized desktops and applications to a Citrix-based public cloud to create hybrid Citrix infrastructures in the context of increasing pressure to provide more cost-effective, agile, and accessible services to their businesses. They realized that they could no longer effectively support their organizations with a wholly on-premises approach, and from there, they looked to establish a hybrid infrastructure environment that includes Citrix-based public cloud. In choosing a public cloud approach, they knew that they needed to minimize the friction associated with migrations, cost, and performance as much as possible, which led them to choose Citrix-based approaches in the Microsoft Azure and AWS public clouds. Its superior compatibility, ease of use, and comprehensive expected benefits — including cost savings on hardware and licenses, reduced deployment times, enhanced security, and ease of management — justified the adoption of a Hybrid Citrix Infrastructure over alternative solutions and approaches.

Interviewed Citrix customers spoke in detail about their considerations in implementing Hybrid Citrix Infrastructures:

Need to move quickly to provide virtual desktops with public cloud-based approach:

“We had a large ask: How many virtual desktops could be provided very quickly? The answer was that our on-premises hardware was maxed out, and getting new hardware was challenging because of supply chain issues ... We put workloads in the public cloud with Citrix, and it was a tremendous success. We got it up and running in two weeks. It’s just taken off from there.”

Move away from on premises, high comfort level with Citrix:

“The primary function of having a Hybrid Citrix Infrastructure is agility. Our datacenters have finite capacity, and the cost of expansion and storage is cumbersome ... We were comfortable with Citrix, our customers consume Citrix every day, and we’re familiar with the build.”

Ease of use and platform simplification and alignment:

“Ease of use was the big driver of setting up a Hybrid Citrix Infrastructure. We have front line users who are not very tolerant of things that are not easy to use, so that drives our strategy.”

Flexibility and ability to run all workloads and applications:

“Citrix is more moldable and flexible. It can be used everywhere, and we can run the applications we want in a Hybrid Citrix Infrastructure. We’re not limited to only certain applications like with other vendors.”

Table 2 (next page) provides details about study participants’ Hybrid Citrix Infrastructure environments at the time of interviews. As shown, they provide virtualized desktop services to sizable numbers of employees (17,633 on average), with slightly more than half of these employees being hybrid workers (52%). The fact that they run 246 virtualized applications on an average of 1,384 public cloud virtual machines (VMs), primarily in the Microsoft Azure and AWS public clouds, further indicates the scale of their environments. For additional details, see **Table 2** (next page).

TABLE 2

Hybrid Citrix Infrastructure Use by Interviewed Organizations

	Average	Median
Number of employees using virtualized desktops with Citrix	17,633	1,900
Percentage of hybrid workers	52%	46%
Number of virtualized applications	246	75
Number of remote/branch office sites supported	53	45
Number of public cloud VMs	1,384	42

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Business Value and Quantified Benefits of Hybrid Citrix Infrastructure

IDC’s research highlights the tangible benefits that study participants reported achieving by creating Hybrid Citrix Infrastructures — i.e., integrating on-premises and public cloud Citrix environments to provide more cost-effective, flexible, and accessible virtualized desktops and applications to their users and customers. Study participants reported that establishing Hybrid Citrix Infrastructures has provided the differentiation required in terms of agility and scalability and ensured that they can choose the right infrastructure for specific business applications.

Interviewed Citrix customers detailed how having Citrix Hybrid Infrastructures that include a public cloud component has benefited them:

Much greater agility and scalability in a cost-effective way:

“Our Hybrid Citrix Infrastructure has been a cost-effective solution that has significantly benefited us. Its scalability and agility have allowed for rapid achievements, turning what was expected to take years or months into tasks accomplished within days.”

Driver of IT and application modernization:

“Implementing a Hybrid Citrix Infrastructure compelled us to transform our applications, migrate away from legacy code, and adopt a cloud-native solution. This shift also introduced agility, allowing us to make our applications more mobile rather than being tied to specific hardware.”

Ability to better support employees:

“The ability to support our hybrid workers is a perfect example of the benefits of having a Hybrid Citrix Infrastructure ... Without this infrastructure, achieving the same level of flexibility would have been significantly more challenging. Our current posture allows us to maintain workplace flexibility.”

Much-improved time to market:

“Our time to market is significantly improved with Hybrid Citrix Infrastructure. We can now do in 26–28 hours what would have taken six weeks previously ... This streamlined approach creates an avenue for exponential project acceleration. Otherwise, we would have faced the complexities of handling it entirely on premises.”

Based on interviews with current customers that have deployed applications to Citrix public cloud environments to establish Hybrid Citrix Infrastructures, IDC calculates that they will realize annual benefits worth an average of \$10.29 million per organization (\$58,300 per 100 users) in the following areas of value (see Figure 1, next page):

• **Business productivity benefits:**

Study participants improve the accessibility and performance of virtualized business applications and services, which yields higher employee productivity and better business results. IDC puts the value of higher net productivity and revenue at an annual average of \$4.49 million per organization (\$25,500 per 100 users).

• **IT staff productivity benefits:**

Study participants benefit from increased ease of management and improved performance to lessen the time that infrastructure, help desk, and application management teams must spend on day-to-day activities while enabling more effective development team activities. IDC’s analysis shows that they will realize IT team efficiencies and productivity gains worth an annual average of \$2.59 million per organization (\$14,700 per 100 users).

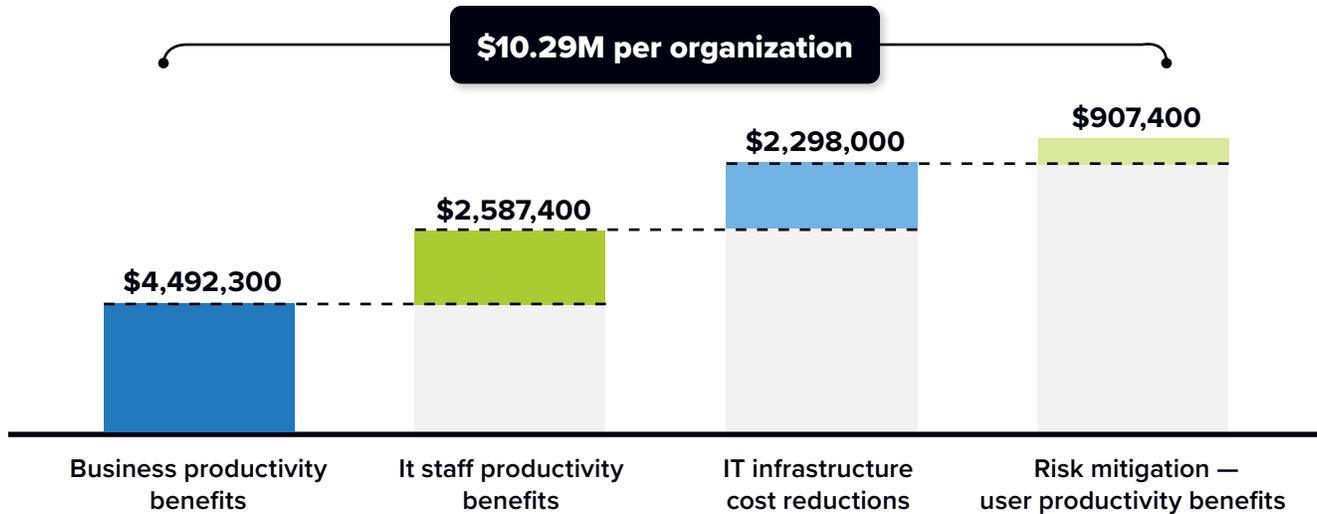
• **IT infrastructure cost reductions:**

Study participants run equivalent applications and workloads more cost effectively and achieve additional cost benefits in areas such as disaster recovery and devices. IDC estimates that they will save an annual average of \$2.30 million per organization (\$13,000 per 100 users).

• **Risk mitigation — user productivity benefits:**

Study participants reduce the frequency and impact of unplanned outages, which will result in higher user productivity worth an annual average of \$907,400 per organization (\$5,100 per 100 users).

FIGURE 1
Average Annual Benefits per Organization
 (\$ per organization)



n = 6; Source: IDC Business Value In-Depth Interviews, June 2024
 For an accessible version of the data in this figure, see [Figure 1 Supplemental Data](#) in Appendix 3.

IT Infrastructure Use Efficiencies and Cost Savings

Study participants explained that adopting a Hybrid Citrix Infrastructure has enabled them to rightsize and optimize infrastructure and related costs. With access to public cloud resources, interviewed Citrix customers reported that they avoid needing to overprovision capacity and better match infrastructure resources to performance and accessibility needs. Further, they spoke to having more predictable budgeting processes by shifting to an operational expense model and being better able to forecast their infrastructure costs on an ongoing basis.

Interviewed organizations provided specific examples of infrastructure and related cost savings:

On-premises infrastructure cost and staff time savings from not having to refresh:

“We have retired around 10 physical servers and 60 VMs by moving to a Hybrid Citrix Infrastructure. We were also able to postpone a server refresh. Further, if we had opted for an on-premises solution, deploying it ourselves would have taken at least a year — twice the effort and time.”

Move to the opex cost model, flexibility in adjusting to demand:

“Using a Hybrid Citrix Infrastructure is an operational expense. Unlike capital expenses, where assets depreciate over time and remain on the books for years, opex provides flexibility ... As our business fluctuates, having virtual desktops allows us to quickly adjust and optimize costs.”

Value of opex model and accurate cost forecasting and budgeting:

“Our primary goal with Hybrid Citrix Infrastructure is to move away from our datacenters, shifting from capital expenditures to operational expenditures ... Rather than investing millions of dollars up front in the hope of covering capacity for the next year, our focus is on growth. The key driver isn't just cost optimization; it's also about accurate cost forecasting and budgeting.”

Significant additional infrastructure and staff time costs to match infrastructure to business needs:

“Without a Hybrid Citrix Infrastructure, we would have needed to add ESXi hosts to each site to deploy applications to remote locations. This would have cost \$10,000 per site, not accounting for additional expenses such as network infrastructure and firewalls.”

Figure 2 (next page) shows the significant cost savings that study participants have achieved for the public cloud components of their Hybrid Citrix Infrastructures. As shown, they are able to run equivalent workloads and applications with their Hybrid Citrix Infrastructure environments at a 44% lower cost on average (see **Figure 2**, next page) as they streamline capital and operational expenses associated with standing up and operating on-premises infrastructure.

Specific infrastructure-related cost savings include:

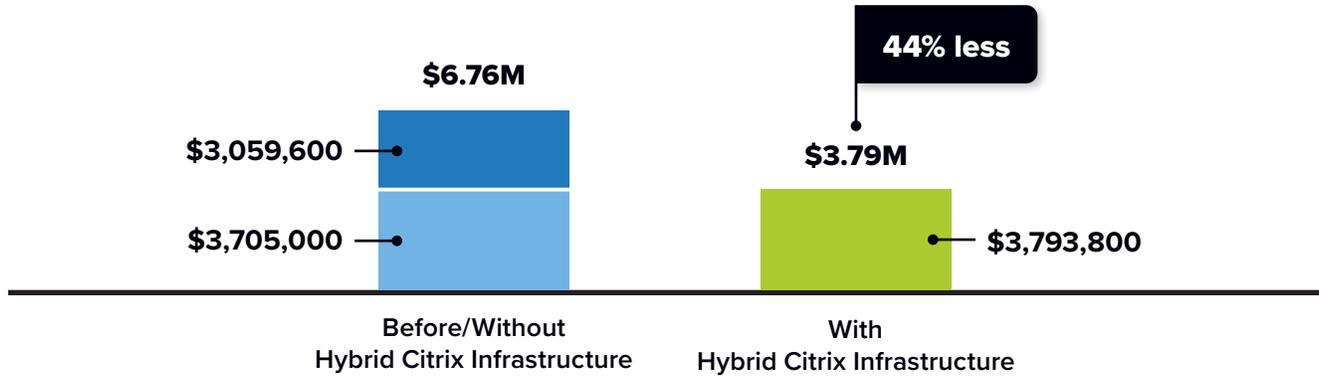
- Retiring or avoiding an average of 156 physical servers that would cost \$2.71 million and have annual maintenance costs of \$370,500 per organization
- Reducing spending on power and facility space by an average of \$139,000 per organization per year
- Saving \$273,600 on device costs by making better use of existing costs
- Reducing spending on licensing by an average of \$48,300 per organization per year
- Avoiding costs associated with disaster recovery environments of an average of \$510,300 per organization per year

FIGURE 2

Three-Year Cost of Solution and Infrastructure

(\$ cost per organization, three years)

- Cost of infrastructure operational costs avoided, three years
- Cost of infrastructure avoided
- Cost of Hybrid Citrix Infrastructure



n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

For an accessible version of the data in this figure, see [Figure 2 Supplemental Data](#) in Appendix 3.

IT Staff Efficiencies

From an operational perspective, the transition to a Hybrid Citrix Infrastructure has facilitated a shift in IT team focus away from day-to-day activities and toward more innovative projects, which helps these teams work more efficiently and productively. Study participants noted the value for IT teams of having a unified hybrid infrastructure environment that offers strong management and automation capabilities, as well as the ability to efficiently move workloads between on-premises and cloud environments.

Interviewed Citrix customers provided examples of how establishing a Hybrid Citrix Infrastructure has enabled many of their IT employees to work more efficiently:

Staff time freed up to focus on further hybrid cloud development and data use cases:

“By implementing a Hybrid Citrix Infrastructure, our staff now has the capacity to focus on additional hybrid cloud deployments. They are also concentrating on enhancing data utilization for application owners. This involves analyzing application data and trends to boost market share through more informed, data-driven decision-making.”

Half the time needed for infrastructure management:

“Utilizing a Hybrid Citrix Infrastructure is resulting in overall time savings for people managing the environment. The 40 hours currently spent managing Citrix would increase significantly without it. In fact, those hours could potentially double to 80 hours.”

Disaster recovery cost and staff efficiencies:

“By implementing the Hybrid Citrix Infrastructure, we are avoiding disaster recovery testing costs. Previously, we had to create virtual machines specifically for DR tests, which were conducted in an isolated environment to avoid impacting production. Now, with the hybrid Citrix setup, we no longer need to spin those resources up and down.”

Table 3 shows the positive impact of having a Hybrid Citrix Infrastructure on teams responsible for infrastructure management. On average, study participants reported efficiencies of 35% for these teams, freeing up more than four full-time equivalents (FTEs) to work on other initiatives or to facilitate workload and application growth.

TABLE 3
Hybrid Infrastructure Management Efficiencies

Efficiencies, FTEs per Organization	Before/ Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure	Difference	Benefit
Equivalent FTEs required for same workloads	11.9	7.7	4.2	35%
Number of staff hours per cloud VM per year	16.1	10.4	5.7	35%
Value of equivalent FTE time required (\$ per organization per year)	\$1.19M	\$0.77M	\$0.42M	35%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Study participants noted a similar positive effect on teams responsible for supporting their virtualized desktops and applications. They generally noted the positive impact on performance in terms of availability, accessibility, and consistency, which leads to fewer help desk tickets (45% fewer) and less severe problems (40% faster to resolve tickets). Taken together, these benefits mean that less help desk team time overall must be spent supporting these environments, with study participants reporting average efficiencies of 36% (see **Table 4**).

TABLE 4
Help Desk Team Efficiencies

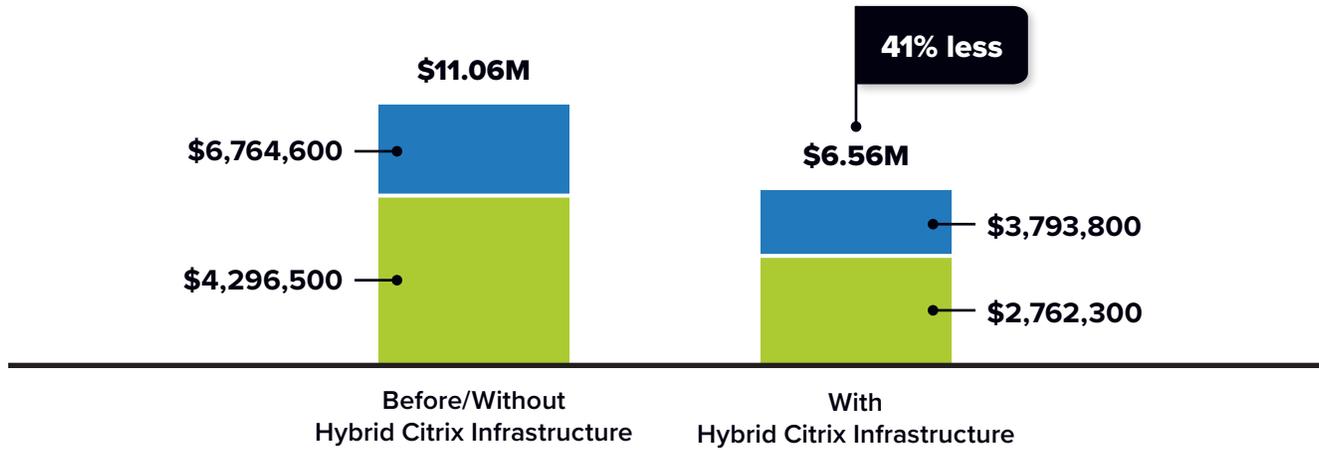
Efficiencies, FTEs per Organization	Before/ Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure	Difference	Benefit
Equivalent FTEs required for same workloads	8.2	5.2	3.0	36%
Value of equivalent FTE time required (\$ per organization per year)	\$822,500	\$524,300	\$298,200	36%
Fewer help desk tickets	n/a	45%	n/a	n/a
Faster to handle tickets	n/a	40%	n/a	n/a

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

For interviewed Citrix customers, the combined effect of lower infrastructure costs and core IT team efficiencies means that they can deliver virtualized desktops and applications at a significantly lower cost with Hybrid Citrix Infrastructures. On average, IDC calculates that they will incur 41% lower costs over three years, which equates to significant average savings of \$4.50 million per organization (see **Figure 3**, next page).

FIGURE 3
Three-Year Cost of Operations
 (\$)

- Cost of infrastructure/Citrix solution
- Cost of IT staff time (infrastructure, support)



n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

For an accessible version of the data in this figure, see [Figure 3 Supplemental Data](#) in Appendix 3.

Study participants further commented on the value of streamlined and efficient device management with their Hybrid Citrix Infrastructures. One interviewed Citrix customer explained: *“Before implementing the Hybrid Citrix Infrastructure, we lacked a virtualized system. Internally, we managed those 1,000 devices manually. The individuals responsible for handling those devices are now saving time. Specifically, the four people involved are saving approximately 20% of their time, which they can allocate to other tasks.”* As shown in **Table 5** (next page), study participants reported average efficiencies of 31% for their teams responsible for managing virtualized and other devices.

TABLE 5
Device Management Team Efficiencies

Efficiencies, FTEs per Organization	Before/ Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure	Difference	Benefit
Equivalent FTEs required for same workloads	20.4	14.2	6.3	31%
Value of equivalent FTE time required (\$ per organization per year)	\$2.04M	\$1.42M	\$0.63M	31%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Enhanced IT Agility and Development

Study participants consistently noted the increased agility of their Citrix environments as a substantial benefit of implementing Hybrid Citrix Infrastructures. With access to public cloud resources and capacity, they can adjust to spikes and declines in resources required and take advantage of fast access to new compute and storage capacity, as well as new virtualized desktops, when needed.

Interviewed Citrix customers provided specific examples of how enhanced agility has benefited them:

Flexible scalability across workloads and applications:

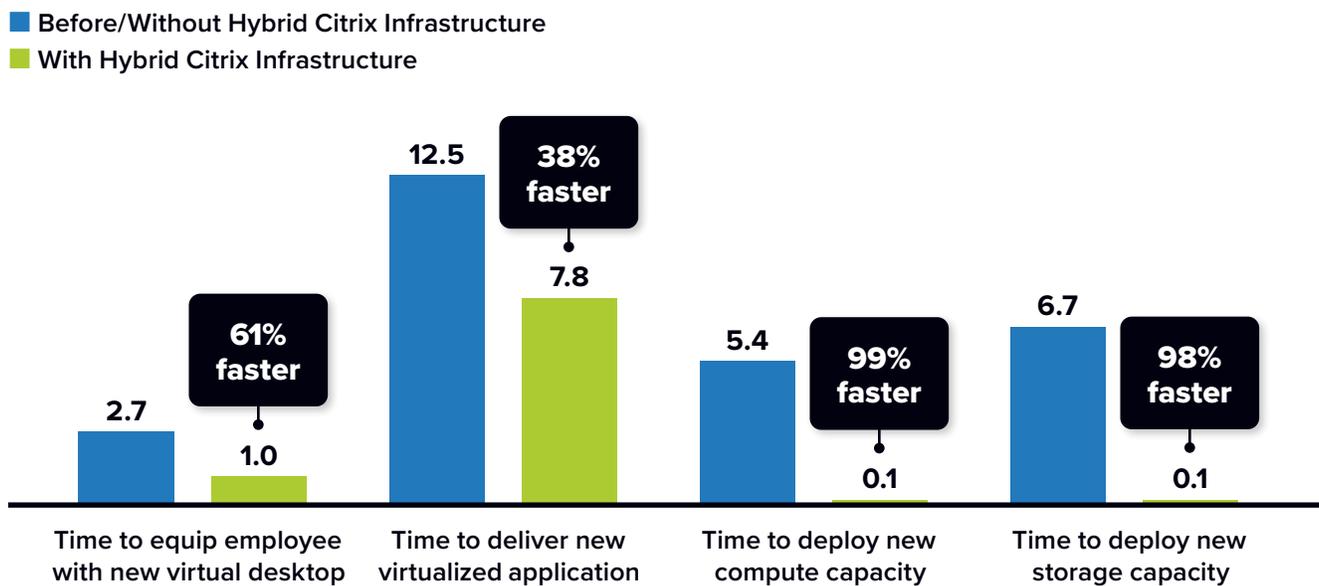
“Hybrid Citrix Infrastructure offers significant flexibility across various configurations and workloads. As we aim to allocate more resources, leveraging the pay-as-you-go model simplifies the process ... We can swiftly scale up resources when needed and seamlessly scale down, all without significant manual effort.”

Public cloud flexibility but without sacrificing security or creating compliance risk:

“Our virtual desktops serve as an extension of our datacenter. They operate within a private or publicly private context, residing in a public cloud but connected to a private network. Our Hybrid Citrix Infrastructure enables us to leverage cloud resources and services while maintaining compliance with our organizational requirements.”

Figure 4 provides IDC’s assessment of the impact of implementing Hybrid Citrix Infrastructures on key agility metrics. As shown, study participants can deploy new virtualized desktops and applications more readily (61% and 38% faster, respectively). Meanwhile, they can essentially provide new compute and storage capacity on an on-demand basis in real time, removing almost all friction associated with these activities and delivering gains of 99% and 98%, respectively, in the time required to deploy these IT resources.

FIGURE 4
Impact on Infrastructure Agility
 (Number of hours)



n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

For an accessible version of the data in this figure, see [Figure 4 Supplemental Data](#) in Appendix 3.

Development teams rely on continual and fast access to compute, storage, and other IT resources to carry out development life-cycle activities. Thus, they benefit from the much greater ease with which they can access compute and storage capacity and deliver new applications and features to end users and customers. As shown in **Table 6** (next page), study participants reported average productivity gains of 15% for their development teams, which constitutes significant value in higher productivity, even with a 15% margin assumption to calculate net productivity gains for development teams.

TABLE 6
Development Team Productivity Gains

Development Team Productivity	Before/ Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure	Difference	Benefit
Overall productivity, FTEs	1,016	1,169	152	15%
Net productivity, FTEs	1,016	1,039	23	2%
Value of productive time per year, net productivity	\$101.63M	\$103.92M	\$2.29M	2%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

User Enablement — Higher Employee Productivity

Study participants reported benefiting from implementing Hybrid Citrix Infrastructures by providing a more consistent and robust user experience across various operational scenarios. As a result, they can better ensure that employees have the tools they need to do their jobs effectively and that they are delivering a top-quality digital experience to customers.

Table 7 (next page) provides IDC’s assessment of the impact of Hybrid Citrix Infrastructures on unplanned outages affecting virtualized desktops and applications. Interviewed Citrix customers reported reducing both the frequency of outages and the time required to resolve outages by 50%, combining to reduce the amount of impactful unplanned downtime they experience by an average of 72%.

TABLE 7

Impact on Unplanned Downtime

Unplanned Downtime KPIs	Before/ Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure	Difference	Benefit
Number of unplanned outages per year	3.6	1.8	1.8	50%
Mean time to repair, hours	1.1	0.5	0.5	50%
Hours of productive time lost per user per year	2.7	0.8	1.9	72%
Productivity loss per year in FTEs per organization	25.4	7.2	18.2	72%
Value of lost productive time per organization per year	\$1.78M	\$0.51M	\$1.27M	72%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Study participants also consistently linked a better user experience and ultimately higher employee productivity to enhanced performance and accessibility with their Hybrid Citrix Infrastructures. They noted that their businesses ultimately rely on their ability to provide employees with robust, relevant, and high-performing applications and tools to do their jobs, and Hybrid Citrix Infrastructures have facilitated this.

Interviewed organizations provided examples of these benefits:

Value of providing stronger user experience:

“Enhancing the user experience is a key aspect of our business operations. It’s essential to provide our mobile employees with a reliable access point, as the stability of our Hybrid Citrix Infrastructure significantly contributes to their productivity.”

Higher productivity through greater use of virtualized applications:

“Our employees are increasingly using virtualized applications through a Hybrid Citrix Infrastructure. Regarding the productivity increase for end users, which is between 5% and 10%, approximately 40%–50% of this improvement can be attributed to their ability to use more virtual applications.”

Table 8 demonstrates the impact of implementing Hybrid Citrix Infrastructures on employee productivity from the perspective of improving accessibility and performance. Study participants reported that a significant number of employees can now set up and have more effective virtual meetings, resulting in average productivity gains of 7% for them as they collaborate and work more effectively. Additionally, interviewed organizations reported that even more employees (1,381 on average per organization) benefit from enhanced access to and performance of virtualized desktops and applications, resulting in average productivity gains of 17%. See **Table 8** below for additional information.

TABLE 8
Business Enablement: Higher User Productivity

	Per Organization	Per 100 Users
Better Virtual Meetings		
Number of users positively impacted	190	1
Percentage of productivity gain, hybrid workers	7%	7%
FTE gain, higher productivity	12.1	0.1
Net value of higher productivity, better virtual meetings	\$848,800	\$4,800
Net value of higher productivity, hybrid workers	\$1.99M	\$58,000
Other Productivity Gains		
Number of users positively impacted	1,381	8
Percentage of productivity gain	17%	17%
FTE gain, higher productivity	319.0	1.8
Net value of higher productivity	\$3.35M	\$126,700
Net value of higher productivity, remote workers	\$879,600	\$25,600

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Business Enablement — Higher Revenue

Study participants reported that all these benefits of implementing a Hybrid Citrix Infrastructure — enhanced agility, scalability, accessibility, user experience, and performance — combine to enable them to better address business demand and serve their customers. As a result, they tied higher revenue to their Hybrid Citrix Infrastructures, as they can more effectively carry out foundational business activities. On average, they reported higher revenue of \$14.0 million per organization per year or average net revenue gains of \$2.10 million per organization per year.

TABLE 9
Business Productivity Benefits, Higher Revenue

Business Enablement	Per Organization	Per 100 Users
Higher revenue per year	\$14.0M	\$79,400
Assumed operating margin	15%	15%
Higher net revenue per year	\$2.10M	\$11,900

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

ROI Summary

Table 10 (next page) provides IDC’s analysis of the financial benefits and investment costs associated with establishing and running a Hybrid Citrix Infrastructure for study participants. IDC calculates that they will realize average three-year discounted benefits in terms of reduced infrastructure costs, IT staff efficiencies, higher user productivity, and revenue gains of \$23.74 million per organization (\$134,600 per 100 users) compared with three-year discounted investment costs of \$5.05 million per organization (\$28,600 per 100 users). These benefits and investment costs would result in an average three-year ROI of 370% and payback in just over one year (13 months), which is evidence of the significant value for this group of Citrix customers of establishing and running Hybrid Citrix Infrastructures.

TABLE 10
ROI Analysis

	Three-Year Average per Organization	Three-Year Average per 100 Users
Benefit (discounted)	\$23.74M	\$134,600
Investment (discounted)	\$5.05M	\$28,600
Net present value (NPV)	\$18.69M	\$106,000
Return on investment	370%	370%
Payback period	13 months	13 months
Discount rate	12%	12%

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

Challenges/Opportunities

Organizations that are operating digital businesses with the cloud model, with talent in short supply, are increasingly integrating new AI/ML technologies into their day-to-day activities and have a lot to focus on.

Balancing all these concerns while also navigating the challenges of delivering a compelling digital experience may be too much to handle, which creates the following opportunities:

- **DEX as an AI employee:**

In the future, most organizations will not be able to perform the detailed work required to operate their digital employee environment. They will instead have to fully outsource this function to AI-enabled services that can maintain and monitor themselves as well as suggesting alternative paths to success when faced with a problem.

- **Human-governed automation:**

To manage these AI employees, the organization will have to move from human-monitored AI to human-governed AI, in which the humans establish guidelines, manage results, and focus on next best actions. This will become increasingly challenging as the digital employee environment becomes a swarm of AI agents, each with its own operating and governing parameters.

- **Multiplied attack vectors:**

This evolving swarm of agents, combined with traditional applications, will create novel threat vectors. The process of “enchantment,” in which an AI agent is presented with (or trained with) malicious data that compels specific threat actions, will require new approaches to protection and resolution.

Conclusion

The Citrix hybrid infrastructure platform provides a strong return on investment (370% ROI over three years), but the necessary complexity of it pushes the break-even point out to over one year (13 months). Those who push through the implementation period see considerable improvements in the cost of operations (44%) and the speed of response to compute needs (99%), along with the ability to reallocate limited staff to more challenging work.

Beyond these metrics, the establishment of a unified management platform prepares the organization for the next, and even more challenging, transition — away from human-monitored, automation-acted management and into a world where AI employees that human directives govern perform much of the day-to-day activity of the cloud operating model. Those who have done this preparatory work will be able to thrive; those who have not will have to refactor their IT financial and business strategy by 2027.

Appendix 1: Methodology

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

Based on interviews with organizations with Hybrid Citrix Infrastructures, 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 Hybrid Citrix Infrastructures:**
In this study, the benefits included infrastructure cost reductions, IT staff efficiencies, user productivity gains, and higher net revenue.
- 2. Created a complete investment (three-year total cost analysis) profile based on the interviews:** Investments go beyond the initial and annual costs of using Hybrid Citrix Infrastructures 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 Hybrid Citrix Infrastructures over a three-year period. The 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 several assumptions, which are summarized as follows:

- Time values are multiplied by the burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings. For the purposes of this analysis, based on the geographic locations of the interviewed organizations, IDC has assumed 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 three-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.
- IDC applies a net margin assumption (15%) for revenue gains and certain user productivity benefits attributed to interviewed organizations' use of Hybrid Citrix Infrastructures, resulting in the net revenue and productivity calculations applied to IDC's model.

- Because the use of Hybrid Citrix Infrastructures requires a deployment period, its full benefits are not available during deployment. To capture this reality, IDC prorates the benefits monthly and then subtracts the deployment time from the first-year savings.

Appendix 2: Quantified Benefits of Use of Hybrid Citrix Infrastructures

Table 11 presents the benefits that IDC has quantified on an annual basis related to study participants' use of Hybrid Citrix Infrastructures. As described in this study, IDC calculates that study participants will realize benefits worth an average of \$10.29 million per organization per year.

TABLE 11
Annual Quantified Financial Benefits

Category of Value	Average Quantitative Benefit	Calculated Average Annual Value*
IT infrastructure cost savings	156 physical servers avoided, \$23,750 per server, 10% maintenance fee per year	\$1.61M
Licensing cost savings	\$48,300 per year of direct licensing cost savings	\$34,500
Device cost savings	\$273,600 per year of direct device-related cost savings	\$195,100
Power and facilities cost savings	\$139,000 per year, power and facilities cost savings	\$99,100
Disaster recovery cost savings	\$510,300 per year of DR-related cost savings	\$363,800

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Category of Value	Average Quantitative Benefit	Calculated Average Annual Value*
IT infrastructure team efficiencies	35% efficiency worth 4.2 FTEs, \$100,000 salary	\$298,800
Help desk team efficiencies	36% efficiency worth 3.0 FTEs, \$100,000 salary	\$212,600
Device management team efficiencies	31% efficiency worth 6.3 FTEs, \$100,000 salary	\$445,600
Application development team productivity gains	15% productivity gain worth 152 FTEs, 23 FTEs net, \$100,000 salary	\$1.63M
Unplanned downtime — productivity gains	72% less downtime, worth 18.2 FTEs, \$70,000 salary	\$907,400
Higher user productivity — better virtual meetings	190 users impacted, 7% higher productivity, 12.1 FTEs gain, \$70,000 salary	\$605,100
Higher user productivity — user enablement	1,381 users impacted, 17% higher productivity, 319 FTEs gain, \$70,000 salary, 15% margin	\$2.39M
Higher net revenue	\$14M higher revenue per year, 15% margin	\$1.50M
Total annual benefits	\$10.29M per organization	

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024 (including initial average deployment time of 10.3 months)

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

Appendix 3: Supplemental Data

This appendix provides an accessible version of the data for the complex figures in this document. Click “Return to original figure” below each table to get back to the original data figure.

FIGURE 1 SUPPLEMENTAL DATA

Average Annual Benefits per Organization

	Benefits per Organization
Business productivity benefits	\$4,492,300
IT staff productivity benefits	\$2,587,400
IT infrastructure cost reductions	\$2,298,000
Risk mitigation — user productivity benefits	\$907,400
Total	\$10.29M

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

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FIGURE 2 SUPPLEMENTAL DATA

Three-Year Cost of Solution and Infrastructure

	Before/Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure
Cost of infrastructure operational costs avoided, three years	\$3,059,600	n/a
Cost of infrastructure avoided	\$3,705,000	n/a
Cost of Hybrid Citrix Infrastructure	n/a	\$3,793,800
Total	\$6.76M	\$3.79M (44% less)

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

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Appendix 2: Supplemental Data (continued)

FIGURE 3 SUPPLEMENTAL DATA

Three-Year Cost of Operations

	Before/Without Hybrid Citrix Infrastructure	With Hybrid Citrix Infrastructure
Cost of infrastructure/Citrix solution	\$6,764,600	\$3,793,800
Cost of IT staff time (infrastructure, support)	\$4,296,500	\$2,762,300
Total	\$11.06M	\$6.56M (41% less)

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

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FIGURE 4 SUPPLEMENTAL DATA

Impact on Infrastructure Agility

	Time to Equip Employee With New Virtual Desktop	Time to Deliver New Virtualized Application	Time to Deploy New Compute Capacity	Time to Deploy New Storage Capacity
Before/without Hybrid Citrix Infrastructure	2.7	12.5	5.4	6.7
With Hybrid Citrix Infrastructure	1.0	7.8	0.1	0.1
Difference	61% faster	38% faster	99% faster	98% faster

n = 6; Source: IDC Business Value In-Depth Interviews, June 2024

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Shannon Kalvar is research director for IDC's IT Service Management and Client Virtualization program, responsible for delivering research and advisory for IT executives, vendor management teams, and investment executives. Shannon's research coverage includes IT service management, desktop as a service (DaaS), virtual client computing, cost transparency tools, software asset management, and the use of AI and natural language processing for service management.

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Matthew is responsible for carrying out custom business value research engagements and consulting projects for clients in a number of technology areas with a focus on determining the return on investment of their use of enterprise technologies. Matthew's research often analyzes how organizations are leveraging investment in digital technology solutions and initiatives to create value through efficiencies and business enablement.

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