

ECONOMIC VALIDATION

Analyzing the Economic Benefits of Nerdio Manager for Enterprise for Microsoft Azure Virtual Desktop

Reduce Azure Virtual Desktop Costs by 55% and Administrative Costs by 50% With Nerdio, While Eliminating Operational Complexity

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Economic Validation: Key Findings Summary

Validated Benefits of Using Nerdio Manager



**55% reduction in Azure
Virtual Desktop costs**



**50% lower VDI
administrative costs**



**VDI-based human errors
reduced by 60%**



Reduced emissions

- **Lower Costs and Improved Cost Predictability:** Enterprise Strategy Group found that Nerdio Manager reduced Azure Virtual Desktop (AVD) and administrative costs in every scenario studied.
- **Improved Business Acceleration:** Nerdio Manager removes complexity and automates operations to allow teams to focus on needs and growth.
- **Improved Security Posture:** Nerdio Manager improves patching and policy management to make infrastructures more secure.

“I do not understand why an AVD customer would not use Nerdio Manager. It is remarkably intuitive to use, removes much of the complexity of AVD, and pays for itself. It is the only product I have ever used that shows you its ROI in real time.”

Introduction

This Economic Validation from TechTarget's Enterprise Strategy Group focuses on the quantitative and qualitative benefits organizations can expect by using Nerdio to simplify the management of Azure Virtual Desktop (AVD). To create the insights in this paper, Enterprise Strategy Group interviewed customers in various stages of their adoption of Nerdio to understand the challenges that pushed them to adopt the product and the impact of new capabilities brought by their Nerdio Manager deployment.

Challenges

The requirements placed on end-user computing environments are changing faster than most organizations can respond to, and the fluidity in the locations of workers and resources doesn't appear as though it will become any less complex in the future. Enterprise Strategy Group interviewed current Nerdio customers to understand the challenges that pushed them to adopt Nerdio Manager for their AVD ecosystem and found the following to be consistent across these organizations:

- **Complexity of management.** Many organizations find the complexity of managing AVD beyond their current ability. The result is suboptimal IT efficiency, missed opportunities for end-user enablement, and the potential of increased attack surfaces.
- **Level and predictability of costs.** Enterprise Strategy Group research found that 56% of companies spend \$21 or more per user, per month for management, user experience, and security tools for endpoint devices.¹ While 27% of companies that switch to some type of virtual desktop infrastructure (VDI) environment for end-user computing (EUC) do so to lower costs, organizations interviewed for this analysis reported their costs were often higher than expected and very unpredictable.²
- **Matching resource level to demand level.** Many IT organizations find it challenging to match the level of available resources in a virtual instance to the user's level of need. The result is often overprovisioned resources and unpredictable costs.
- **Managing client OS lifecycles.** The constant churn of devices, OS types and versions, and updates make the management of a physical PC OS lifecycle an inefficient process. Adding the shift to hybrid workforces to the mix injects additional cost and delay in effective client management.
- **Speed of deployments.** With turnover rates as high as 79% in some industries and workforces that quickly migrate between remote, hybrid, and in-office settings, the need to deploy EUC environments can be overwhelming. Additionally, with 30% of new hires leaving within 90 days and 88% of new employees saying they aren't given a good onboarding program, the need to quickly engage and empower new employees is key.³
- **Ensuring security and policy compliance.** In traditional end-user environments, the top two challenges that push organizations to implement desktop as a service are remote/hybrid work and securing endpoints (see Figure 1).⁴ Both of these are hurdles to a solid security posture.

¹ Source: Enterprise Strategy Group Complete Survey Results, [Endpoint Device Trends](#), February 2024.

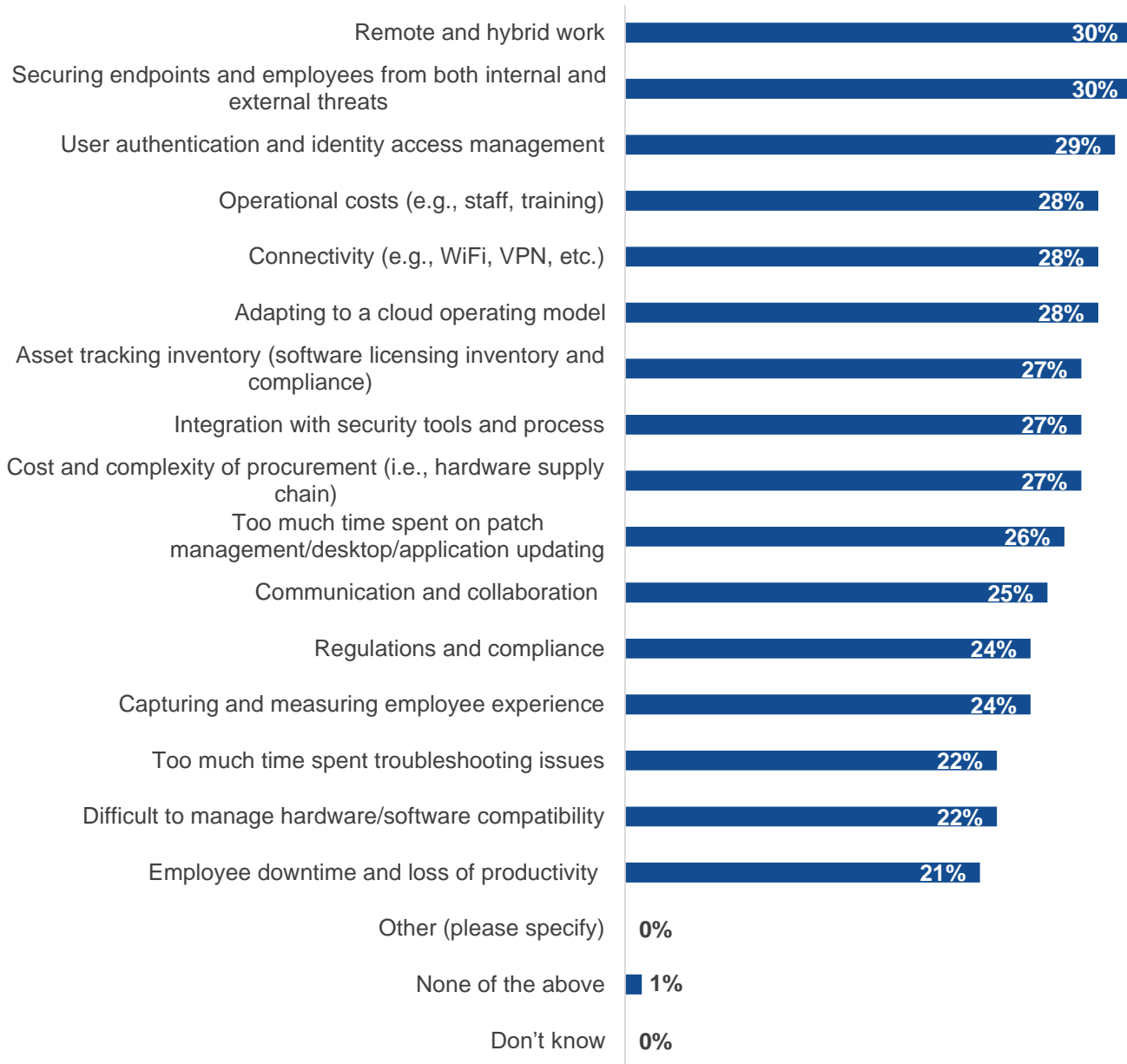
² Ibid.

³ Source: Kristy Snyder, Cassie Bottorff, and Brette Sember, J.D., "[Key HR Statistics And Trends In 2024](#)," Forbes.com, May 2023.

⁴ Source: Enterprise Strategy Group Complete Survey Results, [End-user Computing Trends](#), February 2022.

Figure 1. Top Challenges Associated With Managing EUC Environments

Which of the following challenges do you associate with managing and supporting your organization's EUC environment? (Percent of respondents, N=378, multiple responses accepted)

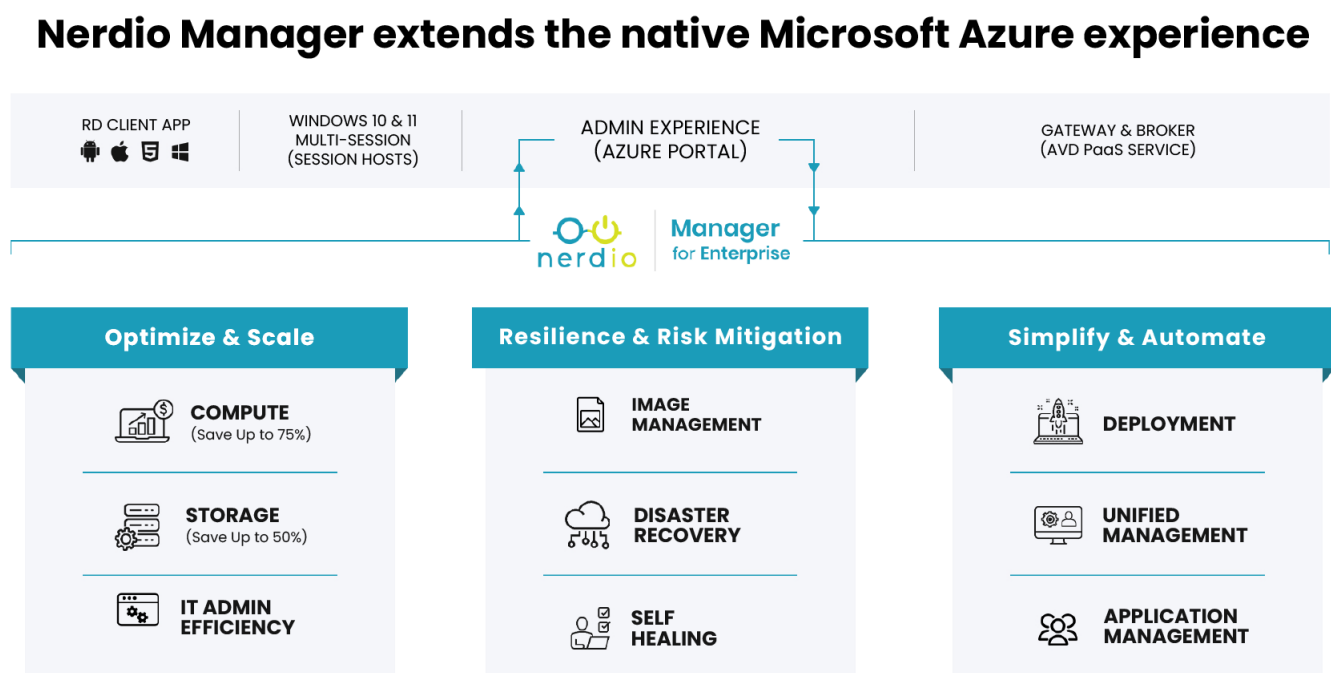


Source: Enterprise Strategy Group, a division of TechTarget, Inc.

The Solution: Nerdio Manager

Nerdio Manager is a deployment, management, and optimization platform designed to help organizations enhance their AVD and Windows 365 deployments, enabling full functionality without much of the complexity that can come with the platforms. Nerdio Manager automates key processes such as provisioning, scaling, and cost optimization, while also enhancing security and user experience. With its intuitive interface and advanced features like dynamic image management, auto-scaling, and comprehensive reporting, Nerdio Manager simplifies complex cloud environments, enabling organizations to efficiently manage their virtual desktop infrastructure and maximize their Azure investments. As shown in Figure 2, Nerdio Manager adds visibility, insight, and control to the AVD experience.

Figure 2. Nerdio Manager



Source: Nerdio and Enterprise Strategy Group, a division of TechTarget, Inc.

Nerdio Manager delivers over 200 additional features and benefits on top of native AVD that simplify, automate, scale, optimize, secure, and protect. Nerdio Manager is designed to enhance AVD instead of replacing it with proprietary technologies and does not require annual commitments or support contracts.

Enterprise Strategy Group Economic Validation

Enterprise Strategy Group completed a quantitative economic analysis to understand how adopting Nerdio Manager can affect organizations using AVD. Our Economic Validation process is a proven method for understanding, validating, quantifying, and modeling a product or solution's economic value propositions. The process leverages Enterprise Strategy Group's core competencies in market and industry analysis, forward-looking research, and technical/economic validation. We conducted in-depth interviews with end users to better understand and quantify how Nerdio Manager has affected their organizations, particularly in comparison with previously deployed virtualized desktop solutions. In addition to having experience with multiple virtualization solutions, some of the customers interviewed were able to compare their Nerdio Manager environment with a traditional PC ecosystem and were able to give detailed feedback on differences between solutions. The qualitative and

quantitative findings were used as the basis for a simple economic model comparing the expected costs and benefits of using Nerdio Manager with Azure Virtual Desktop.

Nerdio Economic Overview

Enterprise Strategy Group's economic analysis revealed that Nerdio provided its customers with significant savings and benefits in the following categories:

- **Lower costs and improved cost predictability.** We found that Nerdio Manager lowered AVD costs in every customer scenario studied.
- **Improved business acceleration.** Nerdio Manager stripped much of the complexity from AVD while adding levels of visibility and control that were not possible before.
- **Improved security posture.** Nerdio Manager facilitated the visibility, intelligence, and control that enables organizations to improve the consistency and strength of their security posture.

"I do not understand why an AVD customer would not use Nerdio. It is remarkably intuitive to use, removes much of the complexity of AVD, and pays for itself. It is the only product I have ever used that shows you the ROI in real time."

Lower Costs and Improved Cost Predictability

Customers who utilize Nerdio Manager to manage their AVD ecosystem found the cost of their AVD instances to be lower and more predictable than before. They also reported they can do much more, with fewer IT resources, than they could in the past. Enterprise Strategy Group reviewed multiple use cases and found these benefits to be consistent across them:

- **Lower AVD costs.** Every organization that Enterprise Strategy Group interviewed for this analysis reported lower AVD costs specifically because of Nerdio Manager. These interviewees reported an average **AVD cost reduction of 55%** when using Nerdio Manager with AVD, compared with using AVD alone. We found that companies that follow a traditional work schedule of eight hours of production can achieve much higher savings because of Nerdio Manager's ability to identify and manage unused resources during down hours, while companies that run around the clock still achieve positive savings on AVD costs of 15% or more. We found that Nerdio Manager brings a level of visibility to AVD management that not only enables administrators to understand how resources are being used, but it also provides logic and guidance that allows proper scoping and monitoring to ensure resources are being used when needed and are shut down when unused.
- **Lower administrative costs.** Enterprise Strategy Group found the IT hours needed to manage AVD were **cut by approximately 50%** with Nerdio Manager. Organizations interviewed shared multiple stories of being able to shift those resources to more strategic work that better aligned IT capabilities with business initiatives. One shared, **"We work differently now that we have Nerdio. The relationship between IT and business is more of a partnership because we now have the time to better understand their needs and find solutions to help them reach their goals."** Enterprise Strategy Group also found that the average cost per admin hour was 4% lower with Nerdio Manager because of the administrative control and ability of Nerdio Manager to remove complexity from the admin workflows.

"We explored AVD for half a year and were overwhelmed by the amount of data flowing at us. Within days of adopting Nerdio, we had a clear understanding of our entire AVD operation and had an actionable list of ways to make it run better and more cost-effectively."

- **Lower support costs.** We found that Nerdio Manager can reduce support costs by an average of 36% by simplifying overall AVD operations, automating many manual workflows, and constantly monitoring the health of AVD instances. As described by one interviewee, **“Nerdio can consistently rebuild machines to keep things from corrupting. Our downtime and support issues have easily been cut in half because of Nerdio.”** In addition to the savings on support staff, our financial model showed the reduction in support to alleviate over 3,000 lost production hours in our sample organization, recovering \$258K in revenue.
- **Elimination of complexity.** Every customer interview held for this analysis highlighted Nerdio Manager’s ability to remove complexity, with much of the benefit realized on the administrative side by getting more out of AVD capabilities while maintaining a higher level of control over the environment. The quantification of removing complexity permeates many of the benefits described in this paper. When looking specifically at the benefit of lowered complexity in AVD operations, we found that human errors related to AVD complexity can be reduced by 60% with Nerdio Manager, and the impact of errors that do occur in a Nerdio Manager environment is lowered another 45%. While the impact of each error varies based on each organization, the benefit of removing complexity from this specific area totaled \$258K annually for our sample company. One unexpected finding that came up consistently in interviews was the benefit of removing complexity from licensing. As explained by one interviewee, **“We are a Microsoft shop. AVD licensing is already in our contract. It made sense to adopt AVD as our solution, and Nerdio allows us to get the most out of AVD while keeping our costs under control.”**

“We saved millions of licensing dollars because of the switch to AVD and Nerdio, specifically because of the visibility and control that Nerdio brings to the table. This is in addition to Nerdio’s ability to cut our AVD spend by more than half.”

Improved Business Acceleration

Companies looking for a change from their current end-user computing environment can see the benefits of shifting to AVD. However, soon after adoption, many find themselves spending too much time and money trying to get the most from AVD capabilities. Enterprise Strategy Group found that Nerdio Manager greatly improved the impact of AVD in every case we studied.

- **Immediate availability, expansion, and contraction of resources.** Nerdio Manager facilitates the almost immediate availability of AVD instances when they are needed. This gives businesses a high level of agility to react to changing needs. Additionally, Nerdio Manager is able to analyze potential usage to recommend SKUs that best match resources to need. Nerdio Manager uses AI to monitor resource utilization and expand or contract resources based on logic rules. This means that instances are ready when they are needed while not being wasted on unutilized capacity.
- **Improved automation.** Enterprise Strategy Group reviewed numerous examples of how Nerdio Manager’s automation changes the way companies can work. Many of these use cases removed manual tasks from the IT workflow, enabling staff to work on more strategic items. Others showed cases where Nerdio Manager was able to do things that were out of the area of expertise for many. One customer described a specific example uncovered, saying, **“We used to have to handwrite all of our automations. It was stretching our AVD team to our max. Nerdio has allowed us to automate all that work and allows us to move that focus to more strategic work.”**

“Nerdio analyzes usage and recommends what SKUs to use, and also recommends what SKUs we should not be using. This intelligence not only lowers costs; it ensures we are giving our employees the right level of technology for their current task.”

- **Changed employee attitudes.** The visibility Nerdio provides helps companies understand how resources are being used and the costs for that specific resource. Enterprise Strategy Group found that this insight often leads to a change in attitude for business units and individual workers because they can understand the cost of their capacity. We reviewed customer-provided examples where projects were completed on time at a higher rate because of the control and reporting that Nerdio Manager provides, with one customer telling us, **“Nerdio allows us to give specific capabilities for a certain amount of time. Because we now place value on the capacity, our people work differently.”**
- **Accelerated time to value for new employees.** We found that the time to value for new employees was lower in Nerdio Manager environments when compared to both AVD and competitive scenarios. For IT employees, the time to value was reduced by almost 30%; for information workers, this time to value was reduced from 10 days down to two days. The benefit on the IT side is the ability to remove complexity from the management interface as well as limit access to match the capabilities of the new worker. The benefit for end users is almost immediate access to the resources they need.
- **Reduced emissions.** Simply put by one interviewee, **“Nerdio eliminates wasted capacity, it turns off instances that would just sit there and burn energy in the past. Nerdio makes us a greener company.”**
- **Tool replacement.** Most companies we interviewed adopted Nerdio Manager as they were deploying AVD. Some tried AVD first, then found Nerdio Manager. Those who were running AVD natively shared stories of trying to purchase or create tools that provided Nerdio Manager-like functionality. One shared, **“We tried to develop our own autoscaling solution. It didn’t go well, took 18 months, and ended up being scrapped. Nerdio does a fantastic job of autoscaling.”** The end result for all who started with the homegrown approach was a higher level of investment than the cost of Nerdio Manager, added frustration in their workflows, and increased risk in their security posture.

Improved Security Posture

Enterprise Strategy Group found that organizations running AVD without Nerdio Manager often found themselves lost in the power and complexity of AVD and running in states that added risk to operations. When asked if their ecosystem was more secure specifically because of Nerdio Manager, every interviewee stated that they had a much higher level of confidence in their security posture since deploying Nerdio Manager. We found that Nerdio Manager was able to improve organizations’ overall security posture because of the following advantages:

- **Improved patching.** Nerdio Manager makes patching strategy and implementation easier, faster, and more cost-effective by automating images and updates. In addition to patch management features, Enterprise Strategy Group found that Nerdio Manager makes it so IT has more time to plan patch management.
- **Better policy management.** We found that Nerdio Manager environments were more consistent in overall policy management compared with native AVD, competitive virtualized environments, and traditional PC environments. This benefit stems from improved visibility and reduced complexity as well as Nerdio Manager’s ability to analyze and report on usage.
- **Improved disaster recovery and business continuity.** Interviewees shared multiple stories of being able to shift from below-the-line operations to above-the-line strategic tasks because of the capabilities of Nerdio Manager. When asked about the benefits of this type of shift, one area interviewees cited repeatedly was a better disaster recovery plan and assurances they can now provide senior leadership about business continuity. Ranging from routine recovery events up to the ability to quickly recover full infrastructure, each reported event was more recoverable because of Nerdio Manager. With Nerdio Manager, organizations reported a better view of their entire ecosystem and the ability to recover all critical parts faster than in the past.

“We love how Nerdio openly shares their roadmap. We can plan our strategy because of our level of trust in both Nerdio and Microsoft. We know both of those companies have security as a cornerstone of everything they release, our security posture has improved since adopting Nerdio and AVD.”

- **Reduced breach risk.** Based on company interviews, existing studies on the cost of data breaches for enterprise-level companies, and publicly available overviews of recent data breaches, Enterprise Strategy Group estimated the cost of a data breach to be \$13M and the annual breach exposure to be 11%. Each customer interviewed agreed that moving to Nerdio Manager reduced the likelihood of a breach by 4% down to 7%. When asked why, they cited improved visibility into operations, better patching strategy and implementation, better policy management, and accelerated recoverability. The improvement from 11% down to 7% amounts to an alleviated risk of \$659K annually.

Enterprise Strategy Group Analysis

Enterprise Strategy Group leveraged the information collected through vendor-provided material, public and industry knowledge of economics and technologies, and the results of customer interviews to create a TCO/ROI model that compares the costs and benefits of Nerdio Manager. We took multiple viewpoints to understand the impact that Nerdio Manager can have for existing AVD customers, for those on competitive virtualization solutions moving to AVD and Nerdio Manager together, and for companies looking to move from traditional PC environments. Our interviews with customers who have recently made the transition to Nerdio Manager, combined with experience and expertise in economic modeling and technical validation, helped to form the basis for our modeled scenario.

Our modeled scenario company has 2,500 VDI users spread throughout the world. They generate \$550M annually and have an 18% employee turnover rate. Details of the modeled company are in Table 1.

Why This Matters

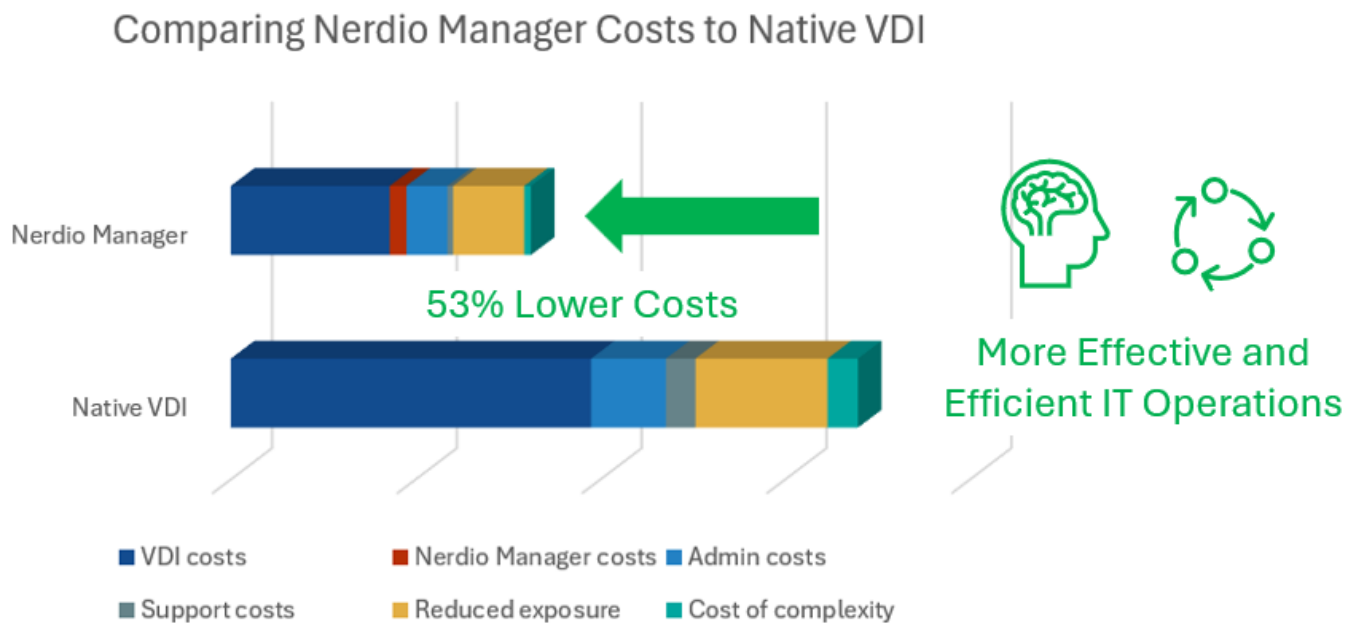
Enterprise Strategy Group interviewed organizations of many sizes and types and in different industries to understand their motivations to adopt Nerdio Manager as well as the impact that it had on their operations. Our sample modeled company is a blend of these companies. We ran numerous scenarios through our financial model to ensure that the benefits reported in this analysis are realistic, achievable, and scalable for most organizations.

Table 1. Modeled Scenario Details

Item	Value before Nerdio Manager	Value with Nerdio Manager	Benefit notes
Number of VDI users	2,500	2,500	Ability to grow and contract with more agility
Annual revenue	\$550M USD	\$552.7M USD	\$2.7M annually
Revenue per employee (annual)	\$220,000	\$221,100	0.5%
Number of VDI admin	7	4	43%
AVD cost per user (monthly)	\$130	\$51	56%, including cost of Nerdio licensing
Support engineers	5	3.2	36%

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

As shown in Figure 3, our modeled organization saw reductions in costs and alleviated risk that were 53% lower with Nerdio Manager when compared with VDI without Nerdio Manager.

Figure 3. Nerdio Reduced Costs and Risks to Facilitate More Effective and Efficient IT Operations

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Conclusion

Requirements for providing end-user computing environments are constantly changing. Workforces that shift from office-centric to remote, and levels of hybrid in between, experience a mixture of challenges and costs that can quickly overwhelm most IT organizations. Many opt for the VDI-based solutions but find that these bring their own unique challenges.

Nerdio Manager is a deployment, management, and optimization platform developed for use specifically with AVD as well as Windows 365 (Cloud PC) and Intune. Enterprise Strategy Group analyzed the impact that Nerdio Manager can have on AVD users and found substantial benefits in lowering costs, removing complexity, accelerating business agility, and improving security posture. We compared the capabilities of Nerdio Manager with using AVD natively as well as with competitive VDI environments and found very compelling benefits that changed the way IT teams can operate in supporting business initiatives.

While the IT capabilities that Nerdio Manager brings are impressive, our analysis uncovered other significant strengths of Nerdio Manager. One customer stated, **“I have never seen a vendor be more supportive of a platform in my 30-year career than Nerdio. They treat us as partners.”** Others told stories of the simplicity that Nerdio Manager brings in constantly identifying the most impactful paths to further refinement. Additionally, Nerdio Manager is one of the few products we have reviewed that show a live view of VDI costs saved.

If your organization is evaluating its EUC environment, or if you are a current VDI user looking for ways to reduce cost and complexity, Enterprise Strategy Group highly recommends you consider what Nerdio Manager can do for your organization.

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