The Business Value of Citrix Analytics for Performance
Table of Contents

CLICK BELOW TO NAVIGATE TO EACH SECTION IN THIS DOCUMENT.

IDC Opinion .................................................................................................................. 3

Business Value Highlights ............................................................................................. 3

Situation Overview .......................................................................................................... 4

Citrix Analytics for Performance ....................................................................................... 5

Business Value of Citrix Analytics for Performance ............................................................ 5

Firmographics .................................................................................................................. 5

Drivers of Use of Citrix Analytics for Performance ............................................................ 6

The Business Value of Citrix Analytics for Performance ...................................................... 8

Improved Desktop and Application Performance ............................................................... 9

Higher User Productivity .................................................................................................. 13

More Efficient Performance Monitoring ........................................................................ 16

Challenges and Opportunities ......................................................................................... 18

Conclusion ....................................................................................................................... 19

Appendix: Methodology ................................................................................................... 20

Appendix 2: Supplemental Data ......................................................................................... 21

About the IDC Analysts ..................................................................................................... 22

Message from the Sponsor .............................................................................................. 23
IDC Opinion

Client virtualization, through both traditional virtual desktop infrastructure (VDI) and newer desktop-as-a-service (DaaS) approaches, became many organizations’ go-to solution for meeting the needs of hybrid work. As the pandemic ebbs and new storms of disruption arise, virtualization comes under increasing pressure to deliver secure and stable high-performance employee experiences in increasingly challenging conditions.

IDC research indicates that, on average, identifying performance problems in a VDI or DaaS system is the most challenging issue the administrators face, taking an average of six more days of work than the next most challenging issue. This is unacceptable both from a practical work standpoint and for its impact on employee experience. Key vendors have risen to the challenge of addressing this problem with analytics offerings, including Citrix with its Citrix Analytics for Performance offering.

IDC spoke with organizations using Citrix Analytics for Performance to understand the impact on the performance and availability of their application and desktop delivery environments. Study participants described using actionable insights with Citrix Analytics for Performance to proactively address performance issues, resolve problems faster, and avoid impactful outages. The result is enhanced business continuity, which not only means increased confidence and reduced operational risk but also reduces costs of poor application and device performance.

IDC found that interviewed Citrix customers save an average of 16 hours of productive time per user per year which not only equates to a value of almost $600 per user per year but also reflects the extent to which employees can focus on performing their jobs as effectively as possible.

Business Value Highlights

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

- **16 hours**
  - of productive time saved per user per year, a value of $596 per user per year
- **37%**
  - fewer interruptions to sessions
- **30%**
  - less frequent performance degradation and/or outages
- **72%**
  - faster to resolve performance degradation
- **67%**
  - faster to resolve outages
- **39%**
  - more efficient monitoring teams
Situation Overview

In December 2021, an IDC survey indicated that just 2% of companies did not expect to have some portion of their workforce engaged in “hybrid” work. This was partially an adaptation to the preceding two years of the pandemic and partially a forward-looking reaction that expected economic and supply-chain issues in the year ahead. By mid-year, geopolitical challenges, including the war in Ukraine and continued rolling lockdowns in world manufacturing centers due to COVID-19, created additional disruption.

At the same time, the definition of “hybrid work” has changed. Originally, hybrid work and remote work displayed the same characteristics: work done away from the office environment, using an electronic device as the primary or sole connection with the larger office culture. After two years of working remotely, hybrid work instead has come to mean having a culture that spans the enterprise regardless of location, with teams and individuals choosing the work location by negotiating their specific needs. At the same time, the role of the endpoint has changed. What was once a way to get work done—to focus and act—has become the primary path into the enterprise. Zoom lunches and team meetings, voice calls through Teams and Slack, online editing of documents, and creating automated workflows over Slack are the new normal, not stopping by one another’s desks or grabbing lunch together and solving problems face-to-face.

This new role requires flawless presentation and execution across a vast range of components. From the endpoint device itself to the far-flung resources used to provide software as a service or cloud-based software, everything needs to work, well and immediately, when the employee needs it to.

Client virtualization helps that need by encapsulating the entire experience, allowing it to be secured and monitored from a single location. This monitoring, though, must go beyond the traditional “bits and bytes” of operational assessment; it must analyze every aspect of the system’s performance, automate remediation when possible, and identify how the system’s behavior impacts the employees’ experience of what is their only way to interact with the enterprise.
Citrix Analytics for Performance

Citrix Analytics for Performance provides a platform for the collection of data from customers, including their virtual apps and desktops and endpoints, leveraging artificial intelligence and machine learning (AI/ML) to provide performance-based insights to administrators. The platform allows administrators to proactively manage their delivery infrastructure rather than react to issues. Citrix Analytics for Performance delivers a cloud management plane—where customer behavior and usage data are ingested from sources, analyzed at scale, correlated against benchmarks, and contextualized—resulting in actionable insights that are delivered to administrators. The solution surfaces unexpected changes in user experience, from both on-premises and Citrix-cloud environments, through a single pane of glass and without assigning additional agents to the workspace.

Citrix Analytics for Performance provides end-to-end visibility to administrators; this allows them to quickly identify, isolate, troubleshoot, and resolve issues, thereby improving end-user experience. The platform provides granular insights and reporting, allowing admins to view and act on aggregate metrics. Citrix Analytics for Performance leverages the power and scale of the cloud to create benchmarks it has aggregated from all of its customers and provides those metrics as best practices.

Business Value of Citrix Analytics for Performance

Firmographics

IDC conducted research that explored the impact of using Citrix Analytics for Performance to optimize the performance and availability of application and desktop delivery environments. The project included five interviews with organizations using the Citrix solution. All interviewed managers had experience with and knowledge about its impact, and they discussed a variety of quantitative and qualitative topics related to their IT and VDI/DaaS environments and business operations.
Table 1 presents study demographics. Interviewed organizations had an average base of 47,400 employees and annual revenue of $29.32 billion, indicating an overall enterprise-level profile with commensurate application and device environments. In terms of geographic distribution, two companies were based in the United States with the others in Canada, India, and Italy. Additionally, study participants provided the perspectives of several major industry verticals, including the energy, financial services, healthcare, pharmaceutical, and travel sectors.

**TABLE 1**

*Firmographics of Interviewed Citrix Customers*

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>47,400</td>
<td>55,000</td>
</tr>
<tr>
<td>Number of IT staff</td>
<td>2,675</td>
<td>600</td>
</tr>
<tr>
<td>Number of business apps</td>
<td>813</td>
<td>850</td>
</tr>
<tr>
<td>Revenue per year</td>
<td>$29.3B</td>
<td>$5.7B</td>
</tr>
<tr>
<td>Countries</td>
<td>Canada, India, Italy, United States (2)</td>
<td></td>
</tr>
<tr>
<td>Industries</td>
<td>Energy, financial services, healthcare, pharmaceutical, travel</td>
<td></td>
</tr>
</tbody>
</table>

n = 5; Source: IDC’s Business Value Research, June 2022

**Drivers of Use of Citrix Analytics for Performance**

Interviewed organizations described common drivers behind their decision to use Citrix Analytics for Performance. Most significantly, they struggled to find ways to leverage data and user feedback to optimize the performance and availability of their application and desktop delivery environments. In short, they needed a solution that would cut through the noise created by hundreds of applications and thousands of users and move to leverage actionable, analytics-based insights provided by the Citrix solution, thus proactively monitoring performance, resolving end-user problems faster, and avoiding outages and any other performance issues. Like most organizations, study participants need applications and devices to perform consistently and without interruption so they avoid friction and business losses that can otherwise occur.

Study participants identified differentiators of Citrix Analytics for Performance such as having access to data-driven insights concerning application and desktop performance as well as actionable performance scores for each user to prioritize user-support activities.
They wanted to have better understanding of the root causes of performance issues by moving beyond limited visibility into just the application layer to also include information on endpoints and network connections. They also called out their ability to better take proactive actions to ensure performance and availability.

**Study participants commented on these aspects of their decisions to use Citrix Analytics for Performance:**

**A need for actual data-driven insights into performance:**
“We chose Citrix Analytics for Performance to get better insights into what the user experience was because everything we had was anecdotal with no actual system of truth to know what’s happening.”

**More proactive in ensuring performance and improving support:**
“We chose Citrix Analytics for Performance as part of providing better support and system maintenance, and to get proactive and preventive data on user performance so that we can proactively address some of the issues and take more proactive measures for system enhancements.”

**More user-friendly scoring and monitoring:**
“The great thing about Citrix Analytics is that you get this composite score, and the solution itself is calibrated to Citrix best practices, and it’s really more customer friendly.”

Table 2 (next page) provides information about the application and desktop environments supported by Citrix Analytics for Performance. As shown, study participants have deployed the Citrix solution in support of significant environments, including an average of 1,550 VMs across both on-premises and public cloud environments, 4,440 virtual desktops, and 13,200 endpoints that employees depend on to access 266 applications for their day-to-day use. In terms of where study participants run applications supported by Citrix Analytics for Performance, three of the interviewed organizations run most of these applications in the public cloud, and two run a majority in on-premises environments.
TABLE 2
Use of Citrix Analytics for Performance by Interviewed Citrix Customers

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of applications</td>
<td>266</td>
<td>80</td>
</tr>
<tr>
<td>Number of VMs</td>
<td>1,550</td>
<td>850</td>
</tr>
<tr>
<td>Number of virtual desktops</td>
<td>4,440</td>
<td>3,500</td>
</tr>
<tr>
<td>Number of users</td>
<td>11,700</td>
<td>8,500</td>
</tr>
<tr>
<td>Number of total endpoints</td>
<td>13,200</td>
<td>8,500</td>
</tr>
</tbody>
</table>

n = 5; Source: IDC's Business Value Research, June 2022

The Business Value of Citrix Analytics for Performance

Study participants reported a significantly positive impact from the use of Citrix Analytics for Performance on their ability to ensure application and desktop availability and performance levels. As a result, their employees are more productive, and their business operations face lower risk related to poor-performing or unavailable applications or services.

Study participants provided specific examples of how Citrix Analytics for Performance delivers capabilities that they leverage to proactively identify and address performance issues more accurately and successfully:

Unique ability to ensure performance:

“The visibility that we get into the overall health and the performance of our applications with Citrix Analytics for Performance allows us to keep a close eye on how the applications are behaving. If we were to deploy these applications on a laptop or a desktop used at home, it would be hard to get telemetry from endpoints and we wouldn’t have the kind of rich information that we have with Citrix Analytics for Performance.”
Leverage information to explain and address user performance issues:

“The most significant benefit of Citrix Analytics for Performance is that it helps us have a conversation with someone and explain to them why their experience isn’t as good as they’d like. .... I’d say 7–10% of our users had a poor experience and if we can point to where their problems are and address them, we’ll see on average a 2–3% gain in productivity because we can more easily figure these things out with Citrix Analytics for Performance.”

As discussed below, interviewed Citrix customers connected their use of Citrix Analytics for Performance to measurable gains in application and desktop performance, which ultimately increased productivity levels across large swaths of their employee bases.

Improved Desktop and Application Performance

Interviewed organizations must transform their networks and processes to deliver more personalized and interactive online rich media experiences that meet and satisfy end-user and customer expectations. These new applications place additional demands on IT and network resources to ensure reliability and optimal performance. In this context, Citrix solutions, including Citrix DaaS and VDI solutions, will often have a key role in fostering employee productivity and furthering business goals.

Citrix Analytics for Performance enables organizations to further their goals related to delivering stronger digital experiences to employees and customers by aggregating, monitoring, and analyzing real-time performance data via machine learning algorithms to detect any patterns of anomalous performance that are affecting (or could affect) end users. It provides tracking and dashboard visualization of key performance indicators (KPIs) related to applications and desktop environments. This functionality provides actionable insights designed to help troubleshoot failures, screen lags, delayed session log-ons, and other issues that may arise.

Study participants provided data confirming that Citrix Analytics for Performance has improved the performance of their virtual applications and desktops. They reported improving day-to-day performance by more proactively identifying and resolving problems. The improved ability to evaluate and act on user-specific performance issues means that end users experience fewer session terminations, lags in performance, or more impactful outages.
Study participants commented on these benefits:

**Enables day-to-day operations by helping resolve problems as they arise:**
“We’ve understood that Citrix Analytics for Performance is a tool that can help us to manage our infrastructure in a better way. It’s a tool that helps our day-by-day operations. Every time we use it, it helps us to solve the specific problem for which we have used it.”

**Identifies bottlenecks quickly with faster resolution of performance issues:**
“The main benefits of Citrix Analytics for Performance are in performance analysis because we can clearly control the end-to-end flow. This permits us to find any bottleneck more quickly. ... The best feature we use permits us to understand where there are some latency problems when our people ask us to investigate poor performance, a big delay in response time of transaction, or the drop of the session because the reach of timeout and so on.”

Gaining an improved ability to evaluate and act on user-specific performance issues means that end users experience fewer session interruptions disrupting workflows and potentially leading to the need to perform repetitive work. As shown in Figure 1, IDC calculates that users face an average of 37% fewer of these disruptions, going from 10.1 to 6.4 session interruptions per year.

**FIGURE 1**
**Frequency of Session Interruptions**
(Number per user per year)

![Graph showing 37% fewer session interruptions with Citrix Analytics for Performance](image)

n = 5; Source: IDC’s Business Value Research, June 2022
IDC then evaluated the impact of using Citrix Analytics for Performance on degradation and full outages affecting applications and desktops. Study participants described more easily understanding the actual user experience through metrics shown in easy-to-view dashboards, which help them pinpoint potential trouble spots. They reported gaining improved visibility and access to actionable information, which they leverage to reduce both the frequency and duration of these events. They especially called out improvements in uptime monitoring due to user-friendly dashboard functionality that aggregates real-time metrics. They also appreciated being able to easily classify and rank-order various levels of user performance.

**Study participants elaborated on these benefits:**

**Higher uptime as result of robust monitoring metrics and automated problem identification/resolution:**

“Citrix Analytics for Performance shows us what our user experience is through a dashboard that breaks metrics down so we can focus proactively on them. We can see differences over time and get alerts — it’s like a red zone for us, so that any machines with issues are automatically addressed through AI and this means automatic reboots if it cannot be fixed. ... We’re running at 96% percent uptime right now with Citrix Analytics for Performance, which we’ve increased from 92%.”

**Ability to ensure user performance and better address incidents:**

“The most significant benefit of Citrix Analytics for Performance is the user experience because we can measure the user experience [and] focus on why the user is facing a poor experience and take some action. The second most significant benefit is whenever we run into major incidents, we use Citrix Analytics to find out what has been the trend, when the issue has started, so we isolate the issue to which systems have the issue or pattern.”

**Figure 2** (next page) shows how use of Citrix Analytics for Performance has impacted the frequency with which performance issues or full outages affect users of applications and desktops. As shown, study participants have limited the frequency of these productivity-affecting events by 30%, reducing the frequency of these types of user-impacting events by more than 20 per year.
FIGURE 2

Frequency of Performance Degradation and Outages
(Number per organization per year)

![Bar chart showing frequency of performance degradation and outages](chart.png)

n = 5; Source: IDC’s Business Value Research, June 2022

Study participants also reported leveraging Citrix Analytics for Performance to move with greater speed and accuracy to restore business-critical applications to levels of peak performance. They spoke to the value of aggregated performance metrics available on a single-console dashboard, which enables them to resolve even full outages in much less time. By limiting the duration of performance issues, they also reduce associated impact on business operations, as employees have more continuous access to applications and desktops and business operations are not exposed to the unavailability of key applications or services.

Study participants provided examples of how Citrix Analytics for Performance enables faster troubleshooting and problem resolution:

**Ability to respond to user problems in a timely way:**

“The most important benefit of Citrix Analytics for Performance is the turnaround time for user issues. When a user reports an issue, we’ve got first level support to identify where the issue is occurring, what’s going on, and be able to bring the right people in to address. . . . The second most important benefit is proactive support: being able to see and identify issues before the user reports them.”
Fast troubleshooting means quicker return to normal business activities:
“Citrix Analytics for Performance affects application availability in a significant way because the troubleshooting is quicker, so we can find the root cause of the problem and that permits the business to operate again faster. We had one situation that permitted us to remove the root cause so that kind of problem never happened again in the future.”

Figure 3 shows the significant impact of Citrix Analytics for Performance on study participants’ ability to quickly and accurately respond to, and resolve, performance issues. This applies both to more limited performance issues (72% faster to resolve, on average) and to full outages that potentially affect many users at one time (67% faster to resolve, on average).

**FIGURE 3**
Impact on Time to Address Performance Issues and Outages
(Number of hours per instance)

<table>
<thead>
<tr>
<th></th>
<th>Before/Without Citrix Analytics for Performance</th>
<th>With Citrix Analytics for Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to resolve performance degradation, hours</td>
<td>3.7</td>
<td>1.0 (72% faster)</td>
</tr>
<tr>
<td>Time to resolve outages, hours</td>
<td>6.0</td>
<td>2.0 (67% faster)</td>
</tr>
</tbody>
</table>

n = 5; Source: IDC’s Business Value Research, June 2022
For an accessible version of the data in this figure, see Data for Figure 3 in Appendix 2.

Higher User Productivity
Because Citrix Analytics for Performance helps study participants ensure better application and desktop availability and performance levels, their end users can work more effectively and with fewer interruptions. As noted, employees’ ability to carry out their day-to-day responsibilities increasingly depends on digital applications and services.
Diminished access—whether a full outage or simply lower performance levels—can exert a cost in terms of lost productivity as employees struggle to access needed data, applications, and devices rather than focusing on the task at hand.

Commenting on these benefits, study participants noted that Citrix Analytics for Performance has helped them proactively identify and develop useful classification schemes for end-user end-user groups experiencing less than optimal desktop and application performance. Thus, they can more proactively and efficiently focus resources on remediating issues that are having a real impact on how employees work rather than trying to use anecdotal user feedback to address performance challenges.

Study participants commented in detail on how Citrix Analytics for Performance has enabled them to deliver notably better experiences to significant numbers of users:

**Limits performance challenges, more proactive response:**
“When we first used Citrix Analytics for Performance, we were typically seeing around 200 people with a poor user experience. Now, we can quickly identify the employees who fall into that category and proactively reach out to them, and we've absolutely reduced the number of employees affected to around 40 at any time. And at the same time, we've become a more proactive IT department because the system is helping us to identify people with poor experiences.”

**Delivers improved user experience with thorough evaluation of performance:**
“Citrix Analytics for Performance uses analytics to make the user experience better because we can sometimes see a problem before it gets reported to us. ... Citrix Analytics classifies users into three categories: excellent user experience, fair user experience, and poor user experience based on defined parameters. By using these analytics, we can improve about 10% of users’ experience by finding out the issue beforehand.”

**Provides more meaningful interactions with users about performance challenges:**
“With Citrix Analytics for Performance, we can really see where the problem is on a user’s network. That’s really helped us in conversations with them. ... We have visibility into different categories that impact session performance, whether it be log-in time or session disconnects—those stats are helpful when you’re having a conversation with someone.”
As these comments confirm, study participants can now ensure quality user experiences with fewer interruptions. This, in turn, has positive across-the-board impacts on business productivity levels. These qualitative observations were confirmed with the data analysis shown in Table 3; IDC evaluated end-user impacts in three areas: productivity gains from fewer session outages, improved application performance, and reduced unplanned downtime. As shown, study participants reported productivity gains in all three, resulting in an average annual productivity gain of 16 hours, worth $596 for each user per year. Across hundreds or even thousands of users supported by Citrix Analytics for Performance, the value of these productivity gains accrues to much larger values that reflect the real and substantial impact of optimizing performance for large numbers of employees who rely on timely and unencumbered access to digital applications and desktops to do their jobs.

**TABLE 3**

**User Productivity Impact**

<table>
<thead>
<tr>
<th>Higher User Productivity</th>
<th>Hours per user per year</th>
<th>Value per user per year</th>
<th>Productivity gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity gains from fewer session outages, hours per user</td>
<td>3.4</td>
<td>$127</td>
<td>0.2%</td>
</tr>
<tr>
<td>Productivity gains from improved application performance,</td>
<td>10.2</td>
<td>$378</td>
<td>0.5%</td>
</tr>
<tr>
<td>hours per user</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productivity gains from reduced unplanned downtime,</td>
<td>2.5</td>
<td>$92</td>
<td>0.1%</td>
</tr>
<tr>
<td>hours per user</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total productivity gains per user per year</td>
<td>16.0</td>
<td>$596</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

n = 5; Source: IDC’s Business Value Research, June 2022
More Efficient Performance Monitoring

In addition to significant across-the-board user productivity gains, study participants reported that the IT teams responsible for monitoring application performance were more effective and efficient with Citrix Analytics for Performance. Not only can these teams more readily identify and respond to performance-related challenges, but they enjoy the benefit of new functionality such as a user experience dashboard showing multi-site KPIs such as session responsiveness, log-on duration, and session failures and reconnects. This embedded functionality helps save staff time and ultimately serves to make these teams more effective and efficient in their work.

Study participants offered specific examples of how Citrix Analytics for Performance has enabled these IT teams responsible for managing and maintaining application and desktop performance levels. They cited better managing of a larger infrastructure footprint with fewer staff members, and they appreciated needing less staff time and head count to carry out the same level of work. Further, they reported avoiding the use of additional monitoring tools and the associated direct costs and staff time required to install and maintain.

Study participants elaborated on these benefits:

Manage larger infrastructure footprint with fewer staff members:
“Switching from on-premises infrastructure to the cloud model and use of a tool [like] Citrix Analytics for Performance has helped us to manage a significantly larger infrastructure with just a few people.”

Less staff time on monitoring means more efficient application and desktop support:
“If we didn’t have Citrix Analytics for Performance, we’d have to go hire, probably two new people split between managing desktops and applications. Also, our time is redirected toward engineering activities.”

Specific time savings on tasks related to application and device support:
“Previously, there was a resource who was spending a week of a month on it, so 40 hours of their time has been saved. ... Also, we would have needed endpoint agents on all user devices. We’ve avoided tools that are expensive and time to install of 10 minutes per user, which would have required 20 hours a month of time to install and maintain the platform.”

Reduced staff time spent on manual monitoring while providing better user experience:
“Citrix Analytics for Performance reduces specifically the time required for monitoring by 15–20% because we don’t need continuous monitoring manually. ... Citrix Analytics is a helping tool for our team to support, monitor, and get better visibility where the problems are to take quicker action.”
This feedback makes clear that Citrix Analytics for Performance enables IT teams responsible for monitoring application and desktop performance to perform more effectively and efficiently because they can better identify and respond to performance-related challenges. Table 4 quantifies these impacts, with study participants reporting an average 39% efficiency in terms of application and device monitoring. For interviewed Citrix customers, these efficiencies have enabled their organizations to accommodate growing data and digital experience environments without commensurate staff growth and freed up valuable staff time previously spent on monitoring to support other business activities.

**TABLE 4**

Application and Device Monitoring Efficiencies

<table>
<thead>
<tr>
<th>Efficiencies, FTEs per Organization</th>
<th>Before/Without Citrix Analytics for Performance</th>
<th>With Citrix Analytics for Performance</th>
<th>Difference</th>
<th>% Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent FTEs required for same workloads</td>
<td>12.1</td>
<td>7.4</td>
<td>4.7</td>
<td>39%</td>
</tr>
<tr>
<td>Value of equivalent FTE time required ($ per organization per year)</td>
<td>$1.21M</td>
<td>$0.74M</td>
<td>$0.47M</td>
<td>39%</td>
</tr>
</tbody>
</table>

n = 5; Source: IDC’s Business Value Research, June 2022
Challenges and Opportunities

Although virtualization and analytics are clearly important to the modern enterprise, there are several challenges that recently become obvious:

Virtualization is truly hybrid-multicloud.
By their nature, client virtualization workloads must be stored in multiple locations, with different groups of users needing to locate their virtualization as close to their applications and data as possible. This means that although a single group of users may be located in one cloud, or in the enterprise datacenter, or in a hosted location in aggregate, the enterprise must deal with all of those locations at once and optimize performance over all of them. This introduces additional complexity into the individual user experience, the analytics used to monitor that experience, and the skills needed to perform root cause analysis on problems when they inevitably arise.

Complexity goes beyond the hybrid-multicloud environment.
The virtual client is the aggregation point for applications and data, documents and technologies drawn together from potentially hundreds of vendors. Without clear analytics and careful planning, creating a useful and operatable system is rapidly becoming difficult, especially in an environment where employees with the appropriate skills are difficult to find and harder to retain.

Finally, as more and more computing resources shift to clouds, cloud providers have found it increasingly difficult to maintain both available resources and performance.
The cloud is, in the end, just datacenters filled with servers connected with high-speed interconnections, not a magical land of endless compute. Ensuring that the enterprise gets the correct resources, performing adequately, and at the cost agreed to at the time it is needed will become more and more difficult as physical supply constraints on computing continue into the foreseeable future.
Conclusion

As organizations have moved to business models that make more use of hybrid work models, client virtualization increasingly serves as an integral way of delivering application and desktop services. End users, whether employees, customers, or partners, need and demand high performance and uninterrupted access to digital applications and services, but identifying and resolving performance issues in a VDI or DaaS system in a timely way remains a serious challenge for many organizations. To address this challenge, organizations have increasingly turned to analytics-based approaches to help them understand and optimize performance.

IDC conducted in-depth interviews with organizations using Citrix Analytics for Performance to understand the impact on their ability to optimize the performance and availability of their VDI and DaaS environments. Study participants reported that Citrix Analytics for Performance has markedly changed their ability to accurately assess performance at a more granular level and offers timely and detailed information that allows them to identify and address performance-related issues. As a result, they can limit the frequency and impact of session interruptions and other application- and device-related performance issues. Thus, their employees work more productively, as they face fewer interruptions and have continual access to the business applications and services that they need to do their jobs, while business operations on the whole face lower risk levels related to poor-performing or unavailable applications or services. For interviewed Citrix customers, these improvements have yielded significant value, with IDC calculating that the average user will benefit from 16 hours of additional productive time per year, which equates to almost $600 in higher productivity per user.
Appendix 1: Methodology

IDC’s standard Business Value methodology was utilized for this project. This methodology is based on gathering data from organizations using Citrix Analytics for Performance as the foundation for the model. IDC collected quantitative benefit information during the interviews using a before-and-after assessment of the impact of using Citrix Analytics for Performance. For this study, IDC interviewed five organizations supporting their application and desktop environments with Citrix Analytics for Performance.

IDC bases its financial 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).

Note: All numbers in this document may not be exact due to rounding.
Appendix 2: Supplemental Data

The table in this appendix provides an accessible version of the data for the complex figure included in this Solution Brief. By clicking “Return to original figure” below the table, you can quickly get back to the corresponding data figure.

DATA FROM FIGURE 3
Impact on Time to Address Performance Issues and Outages

<table>
<thead>
<tr>
<th></th>
<th>Time to resolve performance degradation, hours</th>
<th>Time to resolve outages, hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before/Without Citrix Analytics for Performance</td>
<td>3.7</td>
<td>6.0</td>
</tr>
<tr>
<td>With Citrix Analytics for Performance</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Return to original figure
n = 5; Source: IDC’s Business Value Research, June 2022*
About the IDC Analysts

**Chandana Gopal**  
*Research Director, Future of Intelligence, IDC*

Chandana Gopal is research director for IDC’s Future of Intelligence market research and advisory practice. Her core research coverage includes factors that influence enterprise intelligence such as technologies like artificial intelligence, business intelligence, and data intelligence and cultural elements such as data literacy and knowledge sharing.

[More about Chandana Gopal](#)

[Learn more about IDC’s Future of Intelligence Research Practice](#)

**Shannon Kalvar**  
*Research Manager, IT Service Management and Client Virtualization, IDC*

Shannon Kalvar is research manager 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.

[More about Shannon Kalvar](#)

**Matthew Marden**  
*Research Vice President, Business Value Strategy Practice, IDC*

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 (ROI) 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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