zscaler™

WHITE PAPER

Calculating the Financial Value of Zscaler Digital Experience (ZDX)

Executive Summary

In today's competitive business climate, keeping employees satisfied and productive is essential. Achieving this requires the right technology strategy — one that ensures that end users will experience minimal frustration, will be able to collaborate effectively, and will be able to do "deep work" — that is, achieve highly productive flow states as often as possible. Such a technology strategy can improve retention rates, help the business grow, increase profitability, and enhance organizational resilience, no matter what broader market conditions are like.

Technology is increasingly intertwined with core business processes and essential operations. Whereas application downtime might have been an annoyance in the past, nowadays, it can quickly cause detrimental—and costly—productivity losses. This means that maximizing the productivity of network and service desk teams is vital for the overall health of the business. It's especially important in modern workplaces, where hybrid and remote employees are dependent upon technology to connect and collaborate with others as well as for all forms of productivity. And it will only become more important as organizations implement new tools like generative AI, and these become embedded in day-to-day workflows.

Zscaler Digital Experience (ZDX) is a digital experience monitoring solution that automates root cause analysis through the use of machine learning (ML) and artificial intelligence (AI). This makes it possible for network and service desk teams to maintain global visibility into end users' experiences, rapidly find the root causes of performance-impacting issues, and get detailed insights into network, application, and device performance — even across resources outside the corporate perimeter or the organization's control.

ZDX is a comprehensive solution that can replace costly combinations of diagnostic tools with an all-in-one approach. It leverages automation to accelerate the diagnosis of issues, saving time for end users and support teams alike. This translates into increased productivity — and fewer wasted labor hours for both groups of workers.

Summary of benefits of ZDX*

Cost Savings

$7.4M
annual savings

330%
ROI over 3 years

Productivity Gains

20%
fewer hours lost to downtime

$4.5M
annual benefit of increased productivity

Operations Improved

52%
faster MTTR

$4M
benefit of improved IT efficiency

* All data, calculations, and assumptions in this paper are based on what our customers have experienced in real-world production environments.

In this white paper, we'll consider the costs and benefits associated with implementing ZDX. In particular, we'll focus on:

- **Employee productivity.** How many hours per year are your organization's employees currently losing to poor application or network performance or to downtime?
- **IT support and operational costs.** What is your organization's current mean time–to–resolution (MTTR) for employee–impacting incidents? How much are you spending per incident? What's the impact on these costs if the incident needs to be escalated to a Level 2 or Level 3 support technician?
- **Network, application, and device performance monitoring tools.** How many point solutions with overlapping capabilities could your organization replace by adopting a comprehensive approach? What will this save on licensing costs? How much will streamlined operations boost your IT teams' effectiveness?

> "ZDX is now the starting point for user performance issues at Ciena. And we pinpoint the root cause 95% of the time."
>
> **ED DEGRANGE,** Director of Cybersecurity Operations and Programs, Ciena

Zscaler Digital Experience Cost Savings

Value category	Average Quantitative Benefit	Calculated Avg. Annual Value
Net user productivity gains	3 min. unproductive time per user, per day without ZDX; $38.20 average hourly wage; 20% improvement	$4,469,400
Decreased cost of L1 support	7 min. average incident resolution time without ZDX; 25% reduction	$26,695
Decreased cost of L2 support	120 min. average incident resolution time without ZDX; 45% reduction	$897,960
Decreased cost of L3 support	360 min. average incident resolution time without ZDX; 50% reduction	$3,089,116
Tool consolidation cost savings	Per–user cost of network, application, and device performance monitoring tools	$1,198,000
Total annual benefits achieved with Zscaler Digital Experience	**$7.4M Savings Annually**	

The Business Value of Great End User Experiences

Though the record-breaking quitting rates of 2021 and 2022 have eased somewhat,[1] the lessons that business leaders have learned from the so-called "Great Resignation" are still highly relevant today. It's clear that top-performing employees are the engine that powers profitability, revenue growth, and business success in just about every vertical. Workforce issues such as talent retention and hiring will remain among CEOs' top strategic business priority areas for years to come.[2]

In fact, recent research conducted by Accenture demonstrated that organizations that made unlocking the full potential of data, technology, and people central to their core business strategy experienced an 11% top-line productivity boost when compared with those that did not. These organizations are twice as likely to invest in next-generation skills development (including emerging technology training) and more likely than average to leverage automation as a springboard for effective workforce planning.[3]

Top-performing organizations are also more likely to invest in delivering exceptional digital experiences to their employees. Today's workers are more dependent on technology solutions than ever before to accomplish their core job responsibilities. They're also more likely to socialize with colleagues via digital channels like Slack and Zoom than at any previous point in history. Not only does downtime lead to immediate and tangible productivity losses, but it also leads to feelings of frustration and impatience.

Surveys show that employee satisfaction rates are higher when all participants in hybrid meetings can:

1. see and hear each other clearly
2. easily interact with content shared in the meeting, and
3. seamlessly participate across different operating systems and devices[4]

Business leaders understand that these workplace experiences are vitally important, yet when it comes to delivering them, many organizations continue to fall short. According to research from Gartner, only 13% of employees are fully satisfied with their experience at work, and most of the reasons for these negative perceptions are "feel factors" including ongoing frustration with technology tools and systems that don't perform as they should.[5]

Thus, it's vital that organizational and human resource leaders think carefully about how they're enabling and supporting seamless and frictionless digital experiences in the workplace. The quality of on-the-job digital experiences will impact employee satisfaction rates in the short term, employee retention rates in the medium term, and the organization's reputation and ability to attract top talent for the foreseeable future. With the cost of replacing an exiting employee typically between 1.5 and two times that individual's annual salary and likely to increase further with inflation,[6] delivering poor-quality workplace digital experiences is a human resources risk that most organizations cannot afford to take.

[1] Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover News Release, February 2023.
[2] Source: "CEOs Turn a Sharp Eye to Workforce Issues and Sustainability in 2022–23," *Gartner Insights*, April 2022.
[3] Source: Accenture Research Report: The CHRO as a growth executive, January 2023.
[4] Source: "Three-Quarters of Digital Workers Want to Participate in Creating their Hybrid Work Model, According to Gartner," *Gartner Newsroom*, May 2023.
[5] Source: Gartner for HR: Identifying and Managing Moments That Matter to Employees, 2019.
[6] "This Fixable Problem Costs U.S. Businesses $1 Trillion," *Gallup Workplace*, March 2019.

Introducing Zscaler Digital Experience (ZDX)

Implementing a digital experience monitoring platform like ZDX can mitigate these risks. ZDX is a cloud-delivered service that can analyze, benchmark, and assess the digital experiences that every single user within your organization is having. By increasing visibility across devices, networks, and apps — including those not in your environment or under your control — detecting issues before users even notice them, and quickly pinpointing root causes, ZDX can ensure great user experiences across all locations, devices, and apps. ZDX can also improve network and service desk teams' on-the-job experiences by making it much easier to find and resolve issues. It simplifies the monitoring stack by providing a single, end-to-end view across the full user-to-app connection path.

ZDX is part of the Zscaler Zero Trust Exchange (ZTE), the world's largest any-to-any security cloud platform. The Zscaler platform processes more than 300 billion daily transactions for users, Internet of Things (IoT) and operational technology (OT) devices, workloads, and business-to-business communications. Whenever users and workloads connect through the Zscaler Zero Trust Exchange, Zscaler automatically collects device information, hop-by-hop network statistics, and application performance data from each user's machine. ZDX leverages this information — together with ML and AI — to help network and service desk teams isolate and fix performance issues. This makes it possible for IT to take a proactive approach, solving problems before end users become aware of them.

Organizations that implement ZDX can expect to realize both quantitative and qualitative business value from the solution. Its quantifiable aspects include hard cost savings, improved operational efficiencies, and better end user experiences — which have a measurable impact on productivity — but the organization will also experience "soft" benefits such as improved employee satisfaction and greater resiliency of vital business workflows.

In the remainder of this white paper, we'll model the typical costs associated with employee productivity losses, technical support escalations, and extended incident resolution time periods. All of these costs can be reduced by implementing ZDX. We'll also consider how the costs associated with network, application, and device performance monitoring tools can be reduced by consolidating their functionalities within a single platform. Taken together, these factors allow us to estimate the realizable business value and total cost savings associated with implementing a digital experience monitoring solution like ZDX.

> "When an incident occurs, ZDX lets us know where the problem is, and it lets us decipher that very quickly. This greatly improves the user's experience. MTTR can vary, but it used to take us as long as eight hours to understand what was going on and respond to an incident. Now, we're down to about 15 minutes. That's a huge reduction."
>
> **JEREMY BAUER,** CISO, Molson Coors

Weighing the costs and benefits

For most organizations, the costs associated with deploying and managing digital experience monitoring tools fall into four general categories.

To estimate the total financial impact that implementing ZDX will have on your organization, you'll need to consider and evaluate the costs within each one of these categories.

Licensing

This consists of the annual cost per user, per year, that you pay to the software vendor. Licensing costs can be reduced or consolidated if you choose a single-vendor solution over multiple point products.

Hardware

This includes the initial costs of any appliances you'll need to deploy, as well as maintenance costs — such as labor to maintain connectivity, perform periodic updates, and ensure appliances are performing as expected — plus power, cooling, and costs associated with data center space.

For a SaaS-based solution like ZDX, hardware costs are ZERO.

Labor and Management

The labor costs associated with digital experience monitoring and troubleshooting can be significant, especially when these processes are performed on an ongoing basis at enterprise scale. These costs can be significantly reduced if a solution like ZDX makes it possible for non-specialist employees to perform tasks that used to require higher-level specialist expertise, or if the number of hours that network and service desk teams spend on incident resolution overall can be meaningfully reduced.

Deployment

This category includes labor and professional services costs associated with software deployment. Adding on ZDX to an existing Zscaler implementation requires no effort: you simply have to turn it on.

For existing Zscaler customers, deployment costs for ZDX are minimal.

The cost savings that come with implementing a high-performing digital experience monitoring solution will extend far beyond the purview of network and service desk teams. For the purposes of this white paper, we'll consider the following three categories:

- **End user experience.** From executives to frontline workers, every employee within the organization loses time that they'd otherwise spend producing value for the business whenever they're unable to access the applications they need to get their jobs done.
- **Operational efficiencies.** Implementing ZDX will increase the effectiveness and productivity of service desk, network, and IT operations team members. They'll experience:
  - Reduced alert fatigue
  - Accelerated incident resolution processes
  - Fewer escalations to higher-tier service specialists
  - General efficiency gains and capacity optimization
  - Increased ability to meet users' demands, even with a lean support organization
- **Right-sized technology costs.** Eliminate multiple point solutions that may be poorly integrated or require network and service desk teams to navigate between multiple dashboards. This results in immediate cost savings and may improve ease of use.

In the rest of this white paper, we'll take a closer look at what cost and benefit calculations might look like for real-world customer environments.

Cost Optimization: Employee Productivity

In today's world, technology performance and employee productivity are inextricably intertwined. Whether you're considering developer teams who create customer-facing services, executives who steer the business towards success, or healthcare providers who drive better patient outcomes and even save lives, it's immediately clear that all employees depend upon highly available, connected, reliably-performing IT systems to accomplish their work.

Regardless of whether your employees are salaried or hourly workers, every minute of downtime that leaves them waiting for service to be restored represents a waste of labor costs. At enterprise scale, these costs add up quickly, representing a significant expense for the business.

Let's take a large enterprise as an example here. The company has 45,000 workers. If, due to large numbers of incidents, slow time-to-diagnose, and delayed time-to-recovery, each user experiences three minutes of lost productivity per day, that adds up to 281 full-time employees losing a total of 585,000 annual hours of productivity.

If, like our average customer, this organization can **proactively prevent 10% of incidents** by implementing ZDX, and it can also **decrease the average incident resolution time by approximately 40%**, the company will experience a **20% reduction in lost productivity/downtime.**

For our example organization with 45,000 employees, let's assume that they're paid the average hourly wage for U.S. workers, with compensation that includes benefits. This totals $38.20/hour.[7] If this organization's employees were previously experiencing three minutes of lost productivity daily, implementing ZDX will save the organization over $4.4 million per year.

Productivity Gains with ZDX

Number of employees	45,000
Average unproductive time per employee, per day	3 minutes
Average hourly labor cost	$38.20
Average annual cost of lost productivity to the organization (assuming 260 workdays/year)	$22,347,000
Improvement with ZDX	20%
Annual benefit with ZDX	$4,469,400

Let's change the scenario a bit. Let's imagine that employees are instead experiencing six minutes of lost productivity per day without ZDX. In this scenario, they'd instead benefit from over $8.9 million in annual employee productivity gains by implementing ZDX.

Number of employees	45,000
Average unproductive time per employee, per day	6 minutes
Average hourly labor cost	$38.20
Average annual cost of lost executive productivity to the organization (assuming 260 workdays/year)	$44,694,000
Improvement with ZDX	20%
Annual benefit with ZDX	$8,938,800

Let's take a look at one more scenario. What if the organization's executive team is experiencing ten minutes of downtime per day? This group comprises only five percent of the organization's total user base, but their salaries are much higher, averaging $145,000 per year, or $72.50 per hour.

Number of executives	2,250
Average unproductive time per employee, per day	10 minutes
Average hourly labor cost	$72.50
Average annual cost of lost executive productivity to the organization (assuming 260 workdays/year)	$7,068,750
Improvement with ZDX	20%
Annual benefit with ZDX (for executive productivity)	$1,413,750

[7] Source: U.S. Bureau of Labor Statistics, Employer Costs for Employee Compensation Summary, March 2023.

In this case, we'll also have to factor in lost productivity for the remaining employees in the organization, whose salaries fall in line with the national average. Adding up the total benefits of productivity gains, we see that this organization could save more than $15.5 million per year by implementing a digital experience monitoring solution like ZDX that can significantly reduce downtime.

Number of employees	42,750
Average unproductive time per employee, per day	10 minutes
Average hourly labor cost	$38.20
Average annual cost of lost employee productivity to the organization (assuming 260 workdays/year)	$70,765,500
Improvement with ZDX	20%
Annual benefit with ZDX (for employee productivity)	$14,153,100
Total annual benefit of ZDX	$15,566,850

Scenario A

$4.4M
per year

~281 FTEs
585K annual hours

Assumes 45K users experience **3 minutes** of lost productivity per day

20% improvement with Zscaler

Scenario B

$8.9M
per year

~562 FTEs
1.1M annual hours

Assumes 45K users experience **6 minutes** of lost productivity per day

20% improvement with Zscaler

Scenario C

$15.5M
per year

~938 FTEs
1.9M annual hours

Assumes 45K users experience **10 minutes** of lost productivity per day

20% improvement with Zscaler

Cost Optimization: Operational Efficiencies

Every incident that your network and service desk teams must handle inherently incurs costs for the organization. These include the hourly costs of labor, which are relatively easy to estimate. Downstream, there will be lost opportunity costs associated with the fact that more senior and highly skilled employees will need to devote their time to troubleshooting incidents rather than furthering initiatives that are of strategic value to the business. These costs are meaningful to the company, of course, but it's more difficult to estimate their scope and impact.

ZDX can provide all service desk and support personnel with immediate visibility into the root causes of most issues.

For the purposes of this analysis, we'll focus solely on the easily quantifiable impact that implementing ZDX can have on network and service desk teams' productivity. In this section, we'll consider the financial effects of decreasing support escalations and improving mean time-to-resolution (MTTR) for incidents.

ZDX can provide all service desk and support personnel with immediate visibility into the root causes of most issues. Without such visibility, L1 support technicians can solve only the simplest of problems and answer only the most basic service requests. Anything that's less routine, or that requires more troubleshooting know-how, will need to be escalated to an L2 or L3 tech. This takes time — investigations can be slow if tickets are passed between multiple teams before they're finally resolved — and there's no way for users to get quick answers when they have complaints.

When root cause analysis is automated with ZDX, it's possible to quickly identify and isolate what's responsible for issues. This way, tickets can be routed directly to the appropriate personnel for resolution. Not only does this accelerate resolution, but it also makes for more efficient resource allocation. Greater numbers of issues can be resolved by L1 and L2 technicians, leaving more senior and experienced personnel with more time to spend being proactive — preventing future issues from arising and improving performance within the environment — rather than reactively answering support tickets. Plus, when service desk and network teams — at all levels — can spend less time troubleshooting by manually correlating data, the organization can be more innovative, devoting more resources to high-value projects.

With each escalation (from L1 to L2, and from L2 to L3), the incident becomes more expensive in terms of labor costs. In the U.S., the average hourly wage for Level 1 IT support is between $12–$25, while the average hourly wage for Level 2 IT support falls between $25–$35, and hourly wages for L3 support engineers can top $45.[8]

Implementing ZDX results in **incident resolution rates at the L1 and L2 support tiers improving by an average of 15%.** Across an organization with 45,000 seats, this will result in approximately 5,164 fewer escalations from L1 to L2 per year, and 1,781 fewer escalations above L2. In addition, approximately **15% of incidents, on average, will be prevented entirely** because ZDX makes it possible to mitigate performance issues before they impact end users and proactively notify employees so that they know what to expect.

[8] Source: Payscale.com, Average Information Technology (IT) Support Specialist Salaries.

Let's examine how these improvements would impact the real-world organization with 45,000 employees that we were considering in the previous section.

PROACTIVE TICKET RESOLUTION	WITHOUT ZDX	REDUCTION OR INCREASE	WITH ZDX	IMPACT
Total annual number of tickets	90,000 tickets	15%	76,500 tickets	13,500 fewer tickets

Increase Incident Resolution Rates at Each Level				
Level 1	45% of incidents resolved at L1	+ 15%	52% of incidents resolved at L1	5,164 more tickets resolved at L1
Level 2	30% of incidents resolved at L2	+ 15%	35% of incidents resolved at L2	1,781 more tickets resolved at L2

To calculate the labor cost savings that this enterprise will experience upon implementing ZDX, we'll need to look at the decrease in MTTR, and how this impacts support teams' operational efficiency. Assuming that:

- The L1 rate is $12.83/hour
- The L2 rate is $26.39/hour, and
- The L3 rate is $39.71/hour

We can see that an organization experiencing the reduction in incident resolution time that's typical across our customer base would see an annual IT labor cost savings exceeding $1.2 million.

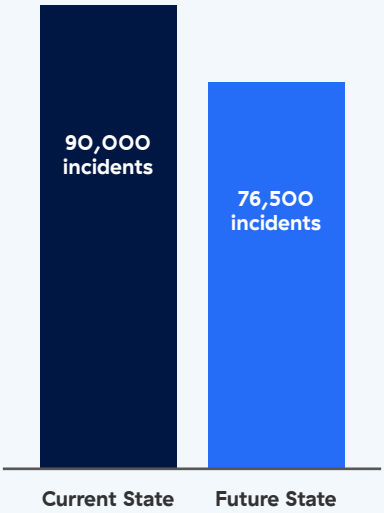
Reducing MTTR

	WITHOUT ZDX	REDUCTION	WITH ZDX	TIME SAVINGS	LABOR COST SAVINGS
Level 1	7.0 min avg. resolution time	25%	5.3 min avg. resolution time	1.8 min/incident	$26,695
Level 2	120 min avg. resolution time	45%	66 min avg. resolution time	54 mins/incident	$897,960
Level 3	360 min avg. resolution time	50%	180 min avg. resolution time	180 mins/incident	$3,089,116

IT Labor Cost	$8,280,478	52%	$4,266,707	---	$4,013,771

Proactive Incident Response

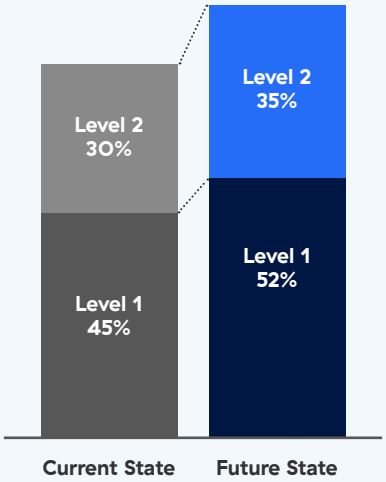
[# of incidents/year]



- Identify End User performance issues before impact & proactivly notify & advise
- Proactively prevent 15% of incidents with Zscaler Digital Experience (# of tickets)
- 13,500 less incident tickets per year

Minimize Support Escalations

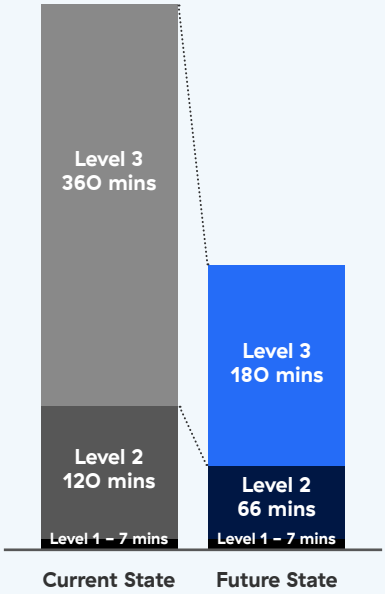
[% incidents resolved]



- Quickly identify & isolate the root cause & assign to the proper resolution groups
- Level 2 iimprovement to resolution rates of L1 & L2 incidents resulting in:
  - 5,164 less incident from L1 → L2 (↓ 15%)
  - 1,781 less incident from L2 → L3 (↓ 15%)

Resolve Incidents Faster

[minutes/incident @ level]



- Identifying & correlating issues faster reduces IT operational burden
- 25% improvement to MTTR of L1–L3 incidents resulting in:
  - 113,905 hours saved by L1–L3 IT Support

Cost Optimization: Network, Application, and Device Performance Monitoring Tools

One of the biggest benefits of implementing a comprehensive solution like ZDX is that it can replace multiple point solutions with a single platform, giving you cross-organizational visibility within a centralized pane-of-glass dashboard.

In recent years, many organizations have been deploying ever-greater numbers of point solutions across their cybersecurity, hardware, network, and IT operations stacks. Research shows that there's a point of diminishing returns when it comes to implementing more solutions — not just in terms of cost, but also in terms of effectiveness. In fact, when it comes to digital experience monitoring a broad array of poorly integrated tools will perform far less well than a single, consolidated platform.

While your organization's cost savings will vary depending on which tools your organization is replacing, they can exceed several hundreds of thousands of dollars per year, especially for larger organizations.

Let's take a look at what this might look like at enterprise scale.

Monitoring Tools Cost Avoidance

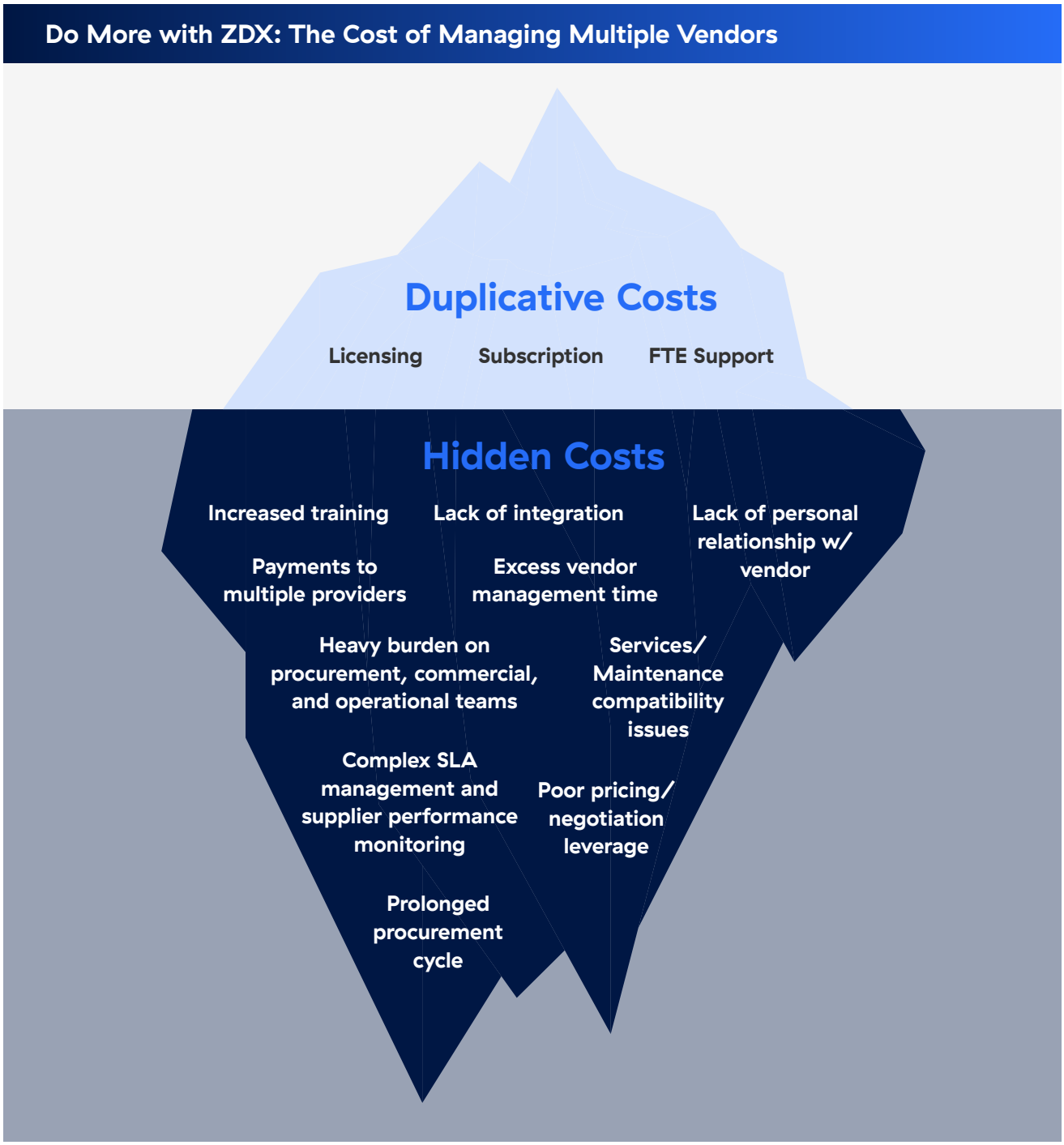
SOLUTION		ANNUAL COST WITHOUT ZDX	ANNUAL COST SAVINGS
Network Performance Monitoring Tool	Network monitoring tool @ $6.56 per user per year, 45,000 users	$295,000	$295,000
Application Performance Monitoring Tool	Application monitoring tool @ $7.51 per user per year, 45,000 users	$338,000	$338,000
Device Performance Monitoring Tool	Device monitoring tool @ $12.56 per user per year, 45,000 users	$565,000	$565,000
Total annual cost & benefit		$1,198,000	$1,198,000

Do More with ZDX: Tool Consolidation

Between 10 and 40 disparate device, network, and application performance monitoring solutions, each covering only part of end users' digital experience, requiring complex integration and manual management.

ZDX, best-in-class unified solution

Beneath the surface, the management complexities that naturally occur within a multi-vendor environment can often multiply the readily apparent costs. These visible costs include licensing, subscription fees, and support costs for each solution, but using multiple tools to monitor digital experiences will require IT teams to be trained on each individual point solution within the mix. It'll also require teams to invest more time and effort into creating and maintaining integrations, and managing multiple vendor relationships. This makes procurement more complex, SLA management more difficult, and per-unit pricing harder to figure out.



Zscaler Digital Experience (ZDX) Powers High-Performing Network and Service Desk Teams to Power Employee Productivity and Job Satisfaction

Stakeholders within organizations looking for a solution that can provide a single source of truth and a starting point for fixing all device, application, and network performance issues often think of this as a technology problem. They're not wrong, but the implications of connectivity and top-notch network performance stretch far beyond the IT department to encompass the entire business.

Many times, decision-makers first compare licensing costs when considering the benefits and drawbacks of various digital experience monitoring solutions. Licensing costs aren't insignificant, but they're only the tip of the iceberg when it comes to the full costs associated with a network, device, and application monitoring toolset. Consolidating multiple point solutions into a single platform like ZDX may reduce what you're paying for the software, but you'll see much greater value — and much more rapid ROI — if the solution you implement has a measurable impact on your organization's employees' productivity.

The greatest costs to your business associated with poor-quality digital experiences are those you can't measure — losing the ability to innovate if top-performing employees leave the company out of frustration, losing the synergies that emerge from real-time collaboration that's powered by seamless connectivity, or losing out to competitors who are able to achieve these things cost-effectively. In today's uncertain economic climate and tomorrow's competitive business climate, these are losses your business can't afford.

Making the decision to invest in a digital experience monitoring solution requires carefully weighing both soft costs and direct costs, as well as risks and potential losses that are not as easily quantifiable. Speeding incident resolution time by enhancing visibility will reduce support costs and operational expenditures. But it will also give business leaders confidence that the organization's very best employees will have the tools they need to stay at the top of their game — day in and day out, all year long.

+1 408.533.0288 Zscaler, Inc. (HQ) • 120 Holger Way • San Jose, CA 95134 zscaler.com