dimensional research

The Value of a Great Desktop Experience
IT Professionals and Business Users Share Experiences

October 2015

Introduction

Anyone who has dealt with an underperforming desktop or laptop computer knows the impact it can have on getting your work done. But what are the important factors in the desktop user experience? What is the real impact of desktop problems? And, do IT and business users see eye to eye regarding the definition of a "good desktop experience" and the impact of desktop underperformance?

The answers to these questions matter because they enable IT teams to:

- Justify their budgets and work to management and end users
- Identify target metrics on acceptable user wait times
- Understand how business users' computing experiences translate into business benefits

Based on in-depth research interviews of IT and business users worldwide, as well as a broad online survey, this report, sponsored by Ivanti, examines business users' experiences with corporate desktops and how those impact employee productivity and business outcomes. It also highlights the potential value of user environment management (UEM) solutions to enhance the desktop experience for employees.

The primary research goals were to understand the value that IT teams place on delivering a good experience on corporate desktops and laptops and to qualify real-life experiences and attitudes toward desktop experiences among IT and business users.

This report also quantifies the main user-specific challenges faced during virtual desktop infrastructure (VDI) projects, including application performance slowdowns, user resistance to change, and more.

The Impact of the Desktop User Experience

> "A good day at work is when I don't think about technology at all, even though I use it the whole time."
> – *Maternity Nurse, Germany*

Undeniably, the best desktops just work. Across all industries, levels and roles, the best experience is one where the desktop or laptop works so well it fades into the background.

What do the best corporate desktop experiences look like? Consider these three scenarios:
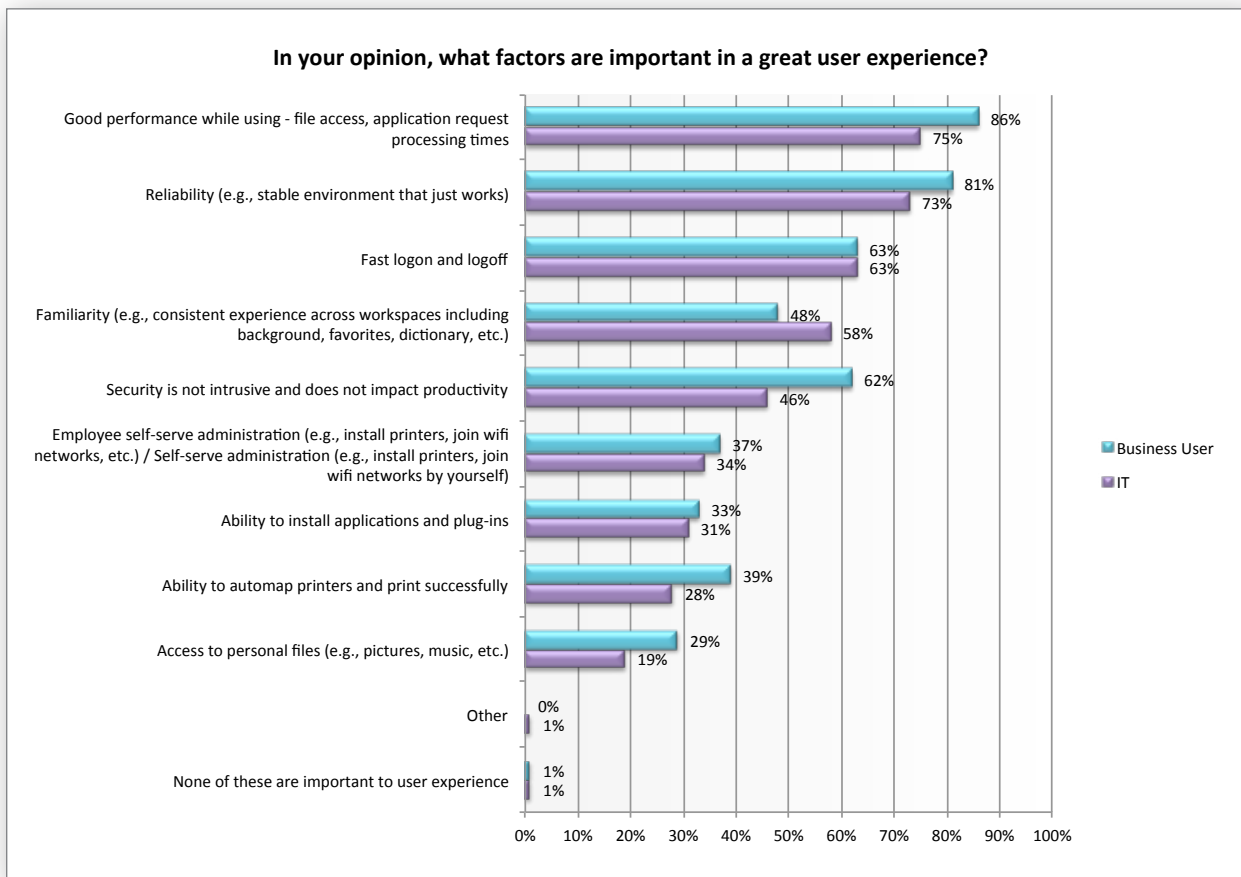
- A nurse quickly retrieves a patient's chart to verify any drug allergies
- A broker executes his client's trade without delay
- A parts supplier effortlessly places an end-of-day order minutes before the 5 o'clock shipping deadline

In these examples, no one waited an unreasonably long time to log on, open an application, or install a plug-in. Their desktops worked as expected and they continued on with their daily routine.

As one IT engineer openly shared, "First and foremost, a good user experience is when they turn on their PC each morning and it boots up the same. There are no problems and it doesn't take too long and it all looks the same."

The user experience is impacted by many factors

There are many possible factors contributing to a great desktop experience that consistently delivers excellent business value. In our survey, the majority (86%) of business users report good performance while using their desktops (e.g., file access, application request processing times) as the most important factor. Good performance is followed closely by reliability (81%) and fast logon and logoff (63%). Interestingly, these top three factors are the same key ones mentioned by IT professionals.

In your opinion, what factors are important in a great user experience?

Factor	Business User	IT
Good performance while using - file access, application request processing times	86%	75%
Reliability (e.g., stable environment that just works)	81%	73%
Fast logon and logoff	63%	63%
Familiarity (e.g., consistent experience across workspaces including background, favorites, dictionary, etc.)	48%	58%
Security is not intrusive and does not impact productivity	62%	46%
Employee self-serve administration (e.g., install printers, join wifi networks, etc.) / Self-serve administration (e.g., install printers, join wifi networks by yourself)	37%	34%
Ability to install applications and plug-ins	33%	31%
Ability to automap printers and print successfully	39%	28%
Access to personal files (e.g., pictures, music, etc.)	29%	19%
Other	0%	1%
None of these are important to user experience	1%	1%

A good desktop experience impacts business results

When we surveyed IT to determine the impact of a good desktop experience on business results, more than half (55%) say providing a great desktop experience to employees significantly impacts business outcomes. Only a small number (4%) state there is no impact to the business.

Does delivering a great desktop experience to employees impact business outcomes?

55%	41%	4%

- Yes, significant impact
- Yes, some impact
- No impact
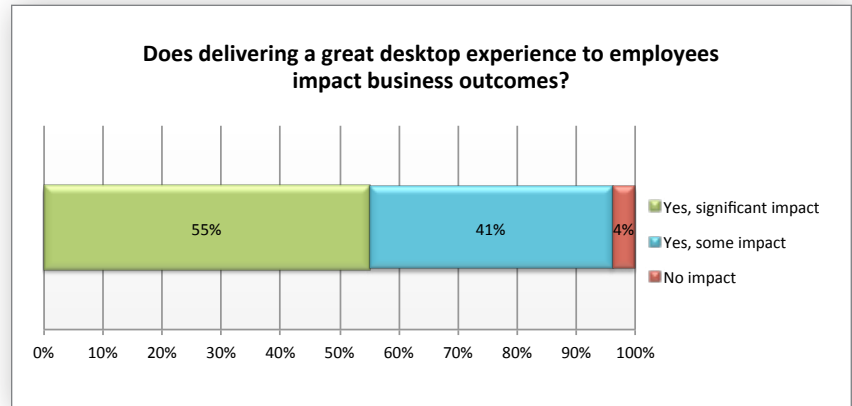
And when we drilled down to the individual end-user level, it was clear that a flawless corporate desktop experience imparts measurable value to employees. In fact, 71% of business users believe a good desktop experience impacts the quality and productivity of their work. Another 26% say yes, it provides some impact.

Does having a desktop that does the things you indicated were important impact the quality and productivity of your work?

71%	26%	2%

- Yes, definitely
- Yes, some
- No
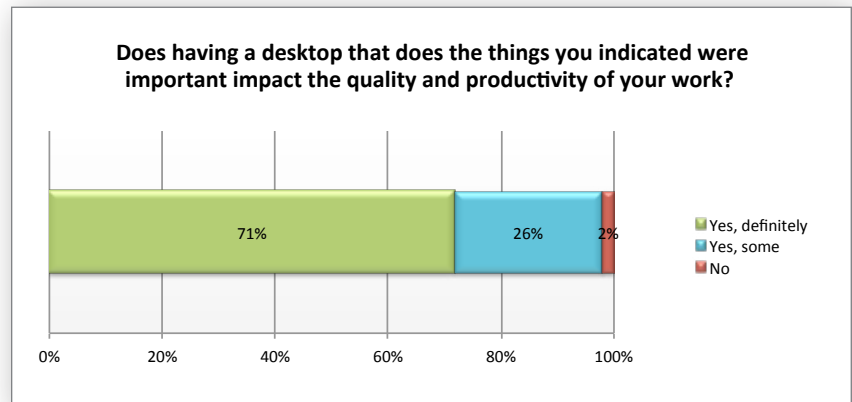
But delivering a good user experience requires hard work from IT. Unfortunately, this effort to deliver a flawless and invisible experience is rarely appreciated by business users. In our research, an IT vice president validated this reality, "We never, ever hear that things are working great. The end users take that as a given, it's what they expect."
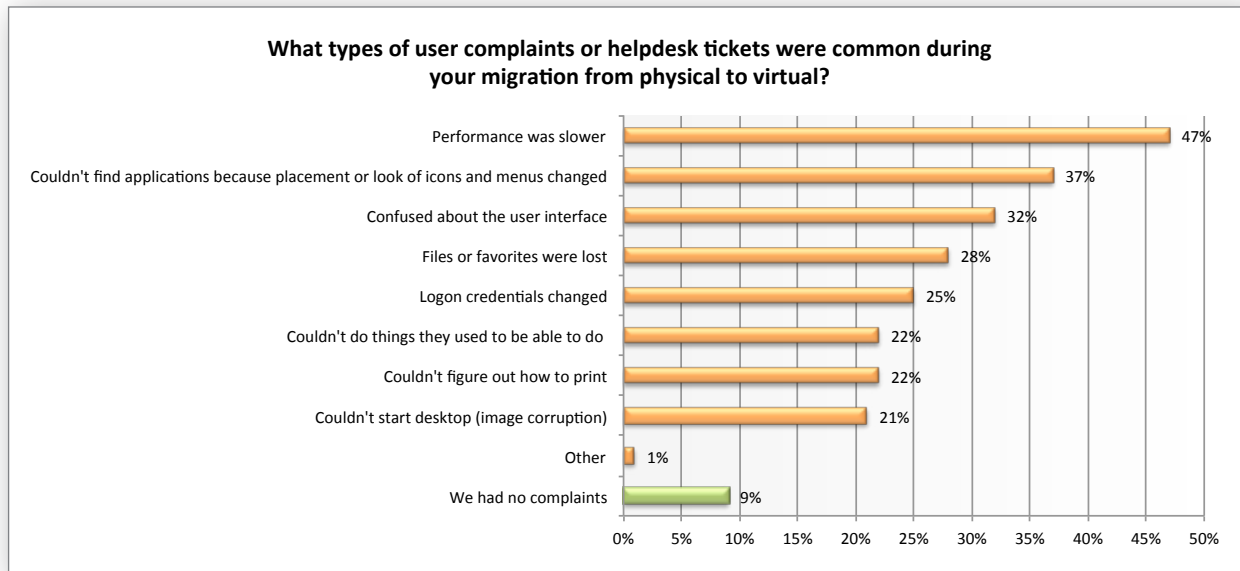
Likewise, employees do not understand what goes on behind the scenes to make their desktop experiences flawless. They simply take it for granted that their desktops will work flawlessly.

> "I'm sure our employees have no idea how hard we work so that they don't really notice their desktops. It's a thankless task." – *IT Director, Finance, U.S.*

Performance is the top user complaint during VDI implementations

As companies migrate from physical to virtual desktops, it often brings tremendous change for end users. And, as human nature tells us, people don't like change. The status quo is easier. But when applications work in a new way, the user interface looks different, or employees can't figure out how to do a routine task, such as printing, they frequently stop their work and complain to IT.
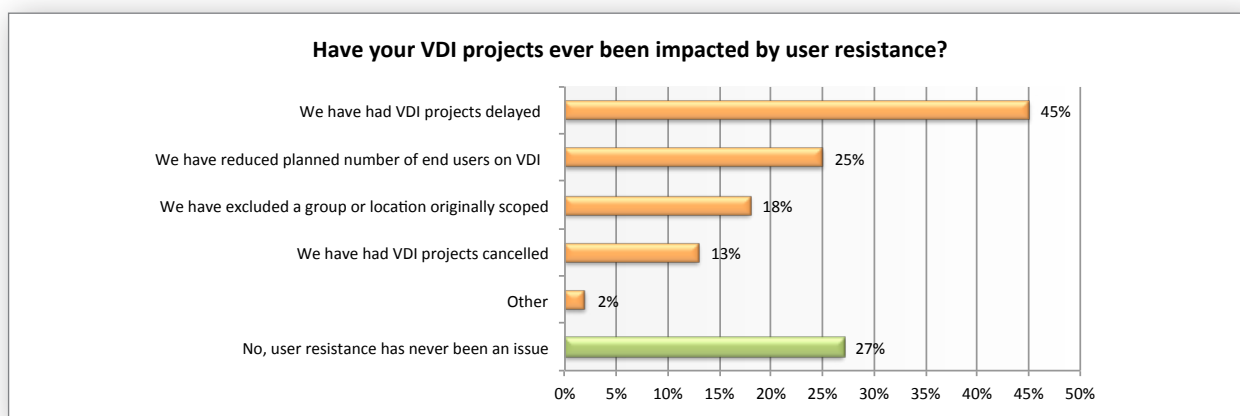
When asked about the common types of user complaints or helpdesk tickets received during a migration from physical to virtual, 47% of IT professionals selected slow performance. This response was followed by business users unable to find applications because placement or look of icons and menus changed (37%), confusion about the user interface (32%), and lost files and favorites (28%). A small minority (9%) reported that they had no complaints.

What types of user complaints or helpdesk tickets were common during your migration from physical to virtual?

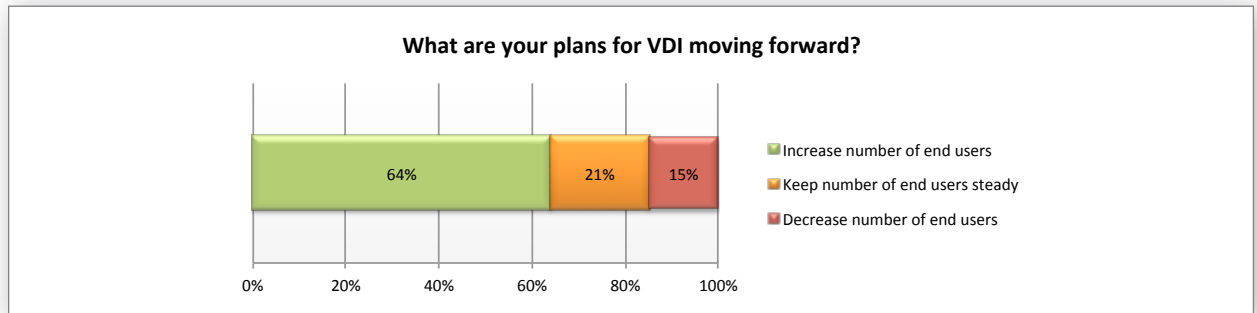| Complaint	Percentage
Performance was slower	47%
Couldn't find applications because placement or look of icons and menus changed	37%
Confused about the user interface	32%
Files or favorites were lost	28%
Logon credentials changed	25%
Couldn't do things they used to be able to do	22%
Couldn't figure out how to print	22%
Couldn't start desktop (image corruption)	21%
Other	1%
We had no complaints	9%

User resistance impacts VDI projects

One of the key takeaways from this research is that user resistance radically and negatively influences the overall success of a VDI project. Most VDI projects are large in scope, with long timelines and big price tags attached. When business users are not moved to the virtual desktop as planned, IT may fail to meet one or more of the VDI project's business goals.

According to IT professionals, nearly three out of four VDI projects are negatively impacted by user resistance. The user resistance consequences most frequently cited by IT are project delays (45%) and a reduction in the planned number of end users on VDI (25%). Only about a quarter (27%) of the participants said user resistance has never been an issue for their organizations.

Have your VDI projects ever been impacted by user resistance?

Impact	Percentage
We have had VDI projects delayed	45%
We have reduced planned number of end users on VDI	25%
We have excluded a group or location originally scoped	18%
We have had VDI projects cancelled	13%
Other	2%
No, user resistance has never been an issue	27%

While this pattern of user resistance negatively impacts VDI project success, most IT organizations invested in VDI still plan to increase its usage.

What are your plans for VDI moving forward?

64%	21%	15%

- Increase number of end users
- Keep number of end users steady
- Decrease number of end users

0%   20%   40%   60%   80%   100%

Desktop Slowdowns Result in Significant Distraction

Performance is at the heart of the desktop experience, whether it is logging on, opening files, switching applications, etc.

Performance is vital to the user experience

In our study, we discovered there are three important ways that performance greatly impacts the business. First, for businesses with high-value earning employees, such as financial advisors, medical clinicians, or attorneys, there is a direct link between performance degradation and reduced company revenue. If a single user experiences a desktop slowdown, it translates to immediate dollars lost.

> "The brokers hate to wait. If anything takes longer than 30 seconds they start to cry."
> − *VP of IT, Finance, U.S.*

Second, consider businesses where many employees are doing the same job, for example, call centers where hundreds of users are retrieving customer information. If each employee is delayed by just one minute every hour, this total productivity loss adds up significantly. In our interviews, one IT director revealed, "You can't have employees sitting around doing nothing. It sounds callous, but we need to get the most from our employees and what they are paid to do. If they're not accomplishing something because of their desktops, that is costing the company money."

Third, in organizations such as hospitals or clinics, desktop performance can significantly influence life and death situations. During our interviews, an emergency nurse explained how a slow desktop could make it difficult for her to enter critical information during a high-pressure moment. "We have a saying that if it's not charted it didn't happen, so we are constantly entering data. It does matter, especially when it comes to medication. If the systems are slow, terrible mistakes can happen."
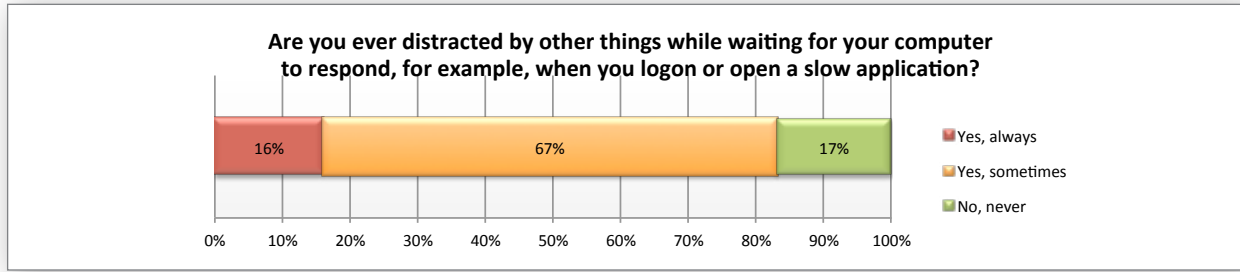
Performance impacts are greater than wait times

It's important to remember that there are other performance impacts far more significant than wait times. From our research findings, distractions at work are frequently named as a major consequence of a slow desktop. What this means is that a two-minute delay to log on to the system or wait for an application can easily distract an employee. Instead of simply waiting for the desktop to respond, the individual may think about or do something else. Now the two minutes morphs into 5, 10, or even 30 minutes of lost productivity. Also, contemplate the employee's disposition as he waits impatiently for his laptop or desktop.

> "If your employees are tapping their fingers waiting for things to load, you have a problem. First, they're not doing their job, but also there are the softer issues with people developing bad attitudes." - *Director of IT, Finance, U.S.*

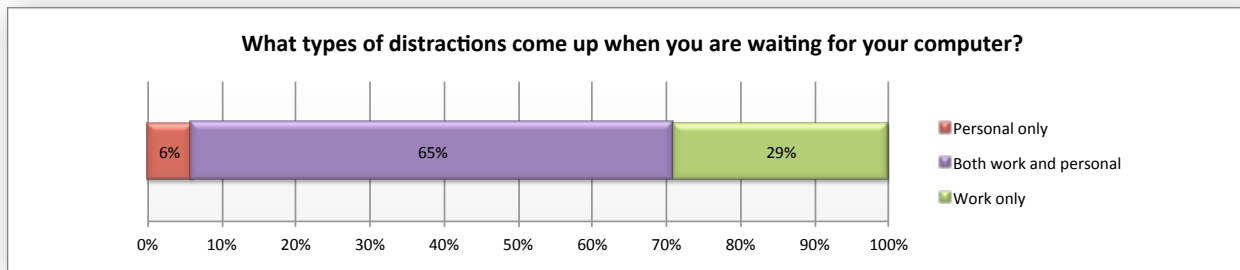## Users — especially Millennials — are distracted by slow computers

To better quantify the magnitude of slow computers contributing to employee distractions, we surveyed business users on this topic. An overwhelming majority (83%) of users are distracted when corporate desktops are slow. And of this group, 67% are always distracted.

Are you ever distracted by other things while waiting for your computer to respond, for example, when you logon or open a slow application?

16%	67%	17%

- Yes, always
- Yes, sometimes
- No, never

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Furthermore, when we looked at their responses by age, Millennials (28%) are more distracted by slow computers than other age groups.
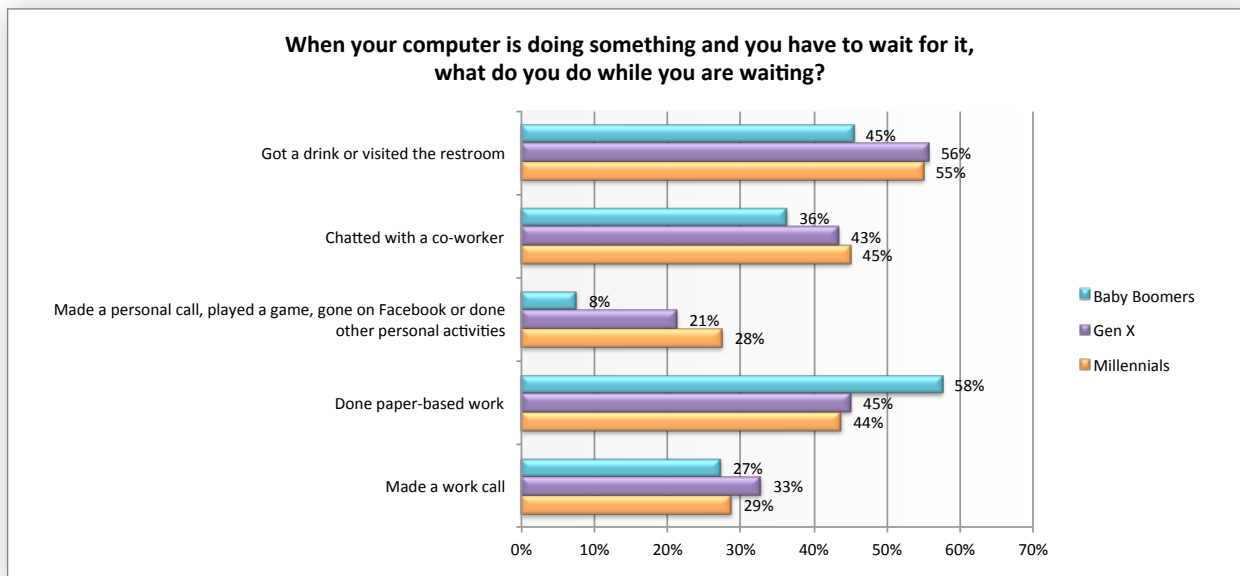
Personal distractions are most common when waiting for computers

One might assume that an employee waiting for the computer will move to another work-related task during this brief delay. However, this is seldom the case. In fact, 71% of business users experience personal distractions when they are waiting for their computers.

What types of distractions come up when you are waiting for your computer?

6%	65%	29%

- Personal only
- Both work and personal
- Work only

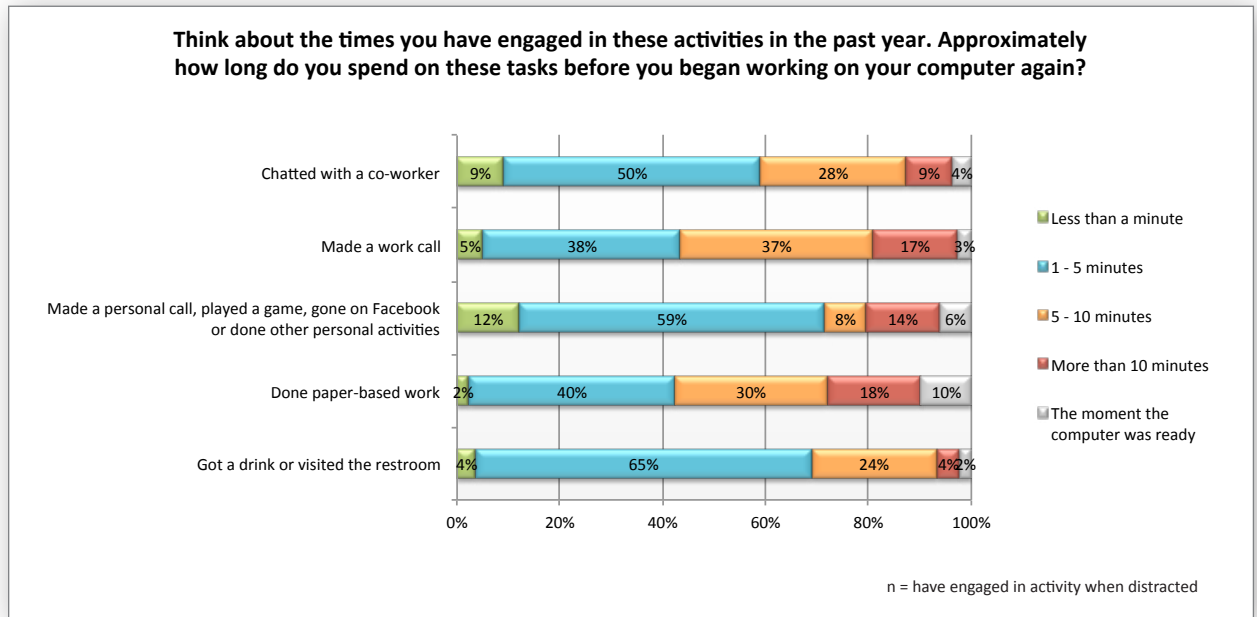0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

So, what happens when employees are distracted while waiting to log on, access an application, or open large files? What do they actually do?

It is interesting to note that the participants' responses varied by age group. Specifically, 58% of Baby Boomers are most distracted by paperwork compared to Gen Xers (45%) and Millennials (44%), while 28% of Millennials are more sidetracked by mobile devices than Gen Xers (21%) and Boomers (8%).

When your computer is doing something and you have to wait for it, what do you do while you are waiting?

	Baby Boomers	Gen X	Millennials
Got a drink or visited the restroom	45%	56%	55%
Chatted with a co-worker	36%	43%	45%
Made a personal call, played a game, gone on Facebook or done other personal activities	8%	21%	28%
Done paper-based work	58%	45%	44%
Made a work call	27%	33%	29%

0% 10% 20% 30% 40% 50% 60% 70%

Distractions have long-lasting impact

One of the most revealing aspects of this research is that when employees are distracted by a slow desktop they rarely — less than 10% of the time — return to the computer the moment it is ready. Instead, they spend one or more minutes doing something else.

Think about the times you have engaged in these activities in the past year. Approximately how long do you spend on these tasks before you began working on your computer again?

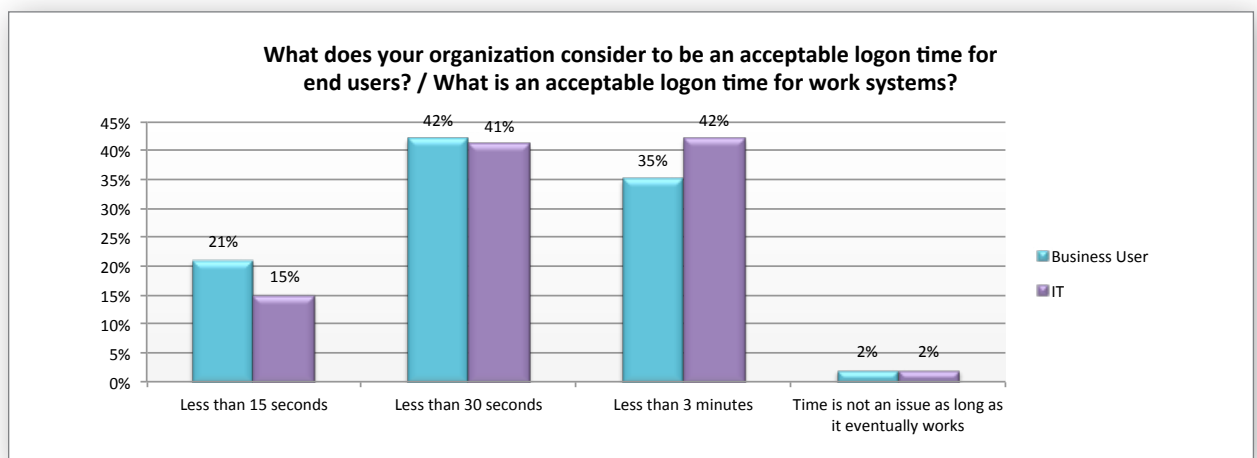| Activity	Less than a minute	1 - 5 minutes	5 - 10 minutes	More than 10 minutes	The moment the computer was ready
Chatted with a co-worker	9%	50%	28%	9%	4%
Made a work call	5%	38%	37%	17%	3%
Made a personal call, played a game, gone on Facebook or done other personal activities	12%	59%	8%	14%	6%
Done paper-based work	2%	40%	30%	18%	10%
Got a drink or visited the restroom	4%	65%	24%	4%	2%

n = have engaged in activity when distracted

Think about the cost of those distractions and lost employee productivity due to desktop slowdowns.

Business users don't want to wait more than 30 seconds to log on

In order to better understand desktop performance and help minimize employee distractions, it's critical to explore acceptable logon times for end users.

Among business users, 42% consider less than 30 seconds tolerable. 21% say less than 15 seconds is acceptable. In contrast, IT is willing to wait much longer for work systems. Specifically, 42% believe less than three minutes is acceptable and 41% state less than 30 seconds is satisfactory.

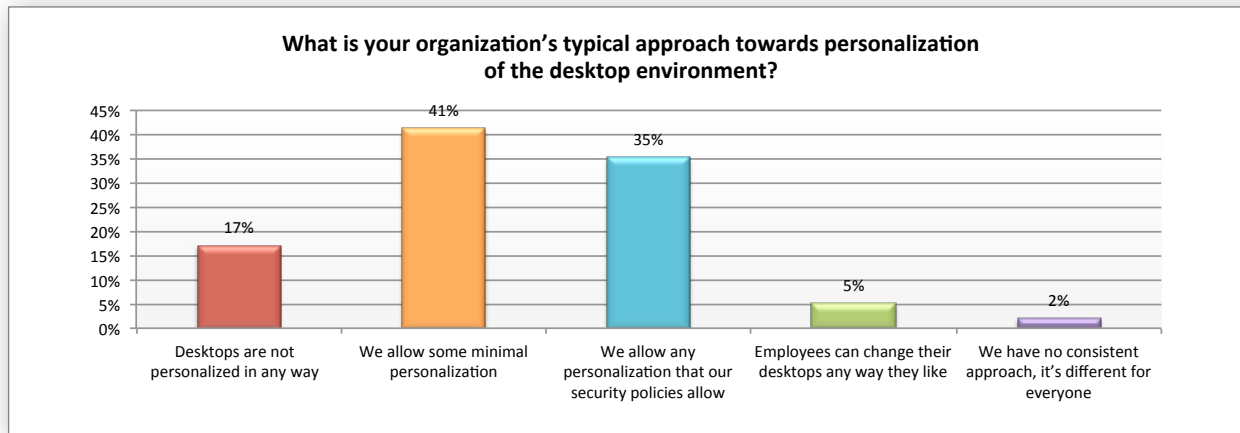In both groups, only a very few (2%) cite time delays are not an issue as long as their desktop eventually works.

What does your organization consider to be an acceptable logon time for end users? / What is an acceptable logon time for work systems?

	Business User	IT
Less than 15 seconds	21%	15%
Less than 30 seconds	42%	41%
Less than 3 minutes	35%	42%
Time is not an issue as long as it eventually works	2%	2%

Employees Appreciate Control of Their Desktops

Employees who feel they are valued as individuals by their employers are usually more satisfied with their jobs. Additionally, they often hold more respect for their employer, and they are frequently more productive at work.

One of the small but meaningful ways companies can foster employee individuality is by giving employees greater control over their physical or virtual desktops, such as the ability to change the desktop display image or background color, arrange icons, add favorites, etc. However, to help minimize security breaches, many organizations limit the control employees have over their desktops.

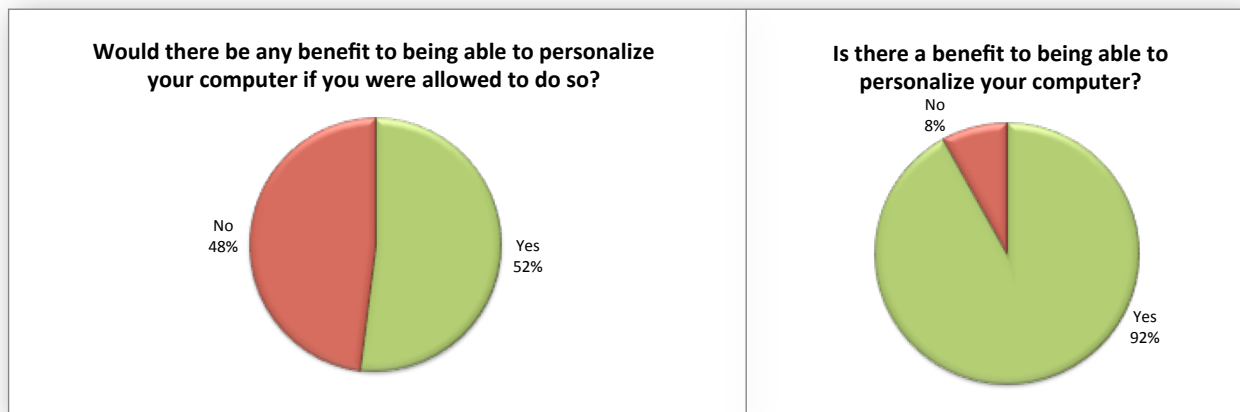## Companies limit personalization of desktops

In this study, 95% of IT professionals limit employee personalization of desktops in their organizations. It's interesting to note that the range of desktop personalization limitations varies, with 41% allowing some minimal personalization, 35% allowing personalization that their security policies permit, and 17% not allowing personalization in any way. Only 5% report employees can change their desktops any way they like.

What is your organization's typical approach towards personalization of the desktop environment?

Category	Percentage
Desktops are not personalized in any way	17%
We allow some minimal personalization	41%
We allow any personalization that our security policies allow	35%
Employees can change their desktops any way they like	5%
We have no consistent approach, it's different for everyone	2%

Employees who personalize see its value

Not all companies are run identically. They each uphold unique security policies — with a variety of desktop personalization limits — depending on the nature of their businesses.

With that said, employees who are not allowed to personalize their computers do not know what they are missing. According to business users who are not permitted to personalize their desktops, 52% see benefit in being able to personalize their computers if they were allowed. However, when employees are permitted to personalize their desktops, they desire this control. In fact, 92% of business users who are allowed to personalize their desktops recognize its value.

Would there be any benefit to being able to personalize your computer if you were allowed to do so?

- No: 48%
- Yes: 52%

Is there a benefit to being able to personalize your computer?

- No: 8%
- Yes: 92%

What are the main benefits in being able to personalize your computer? More than half of business user participants believe they are more comfortable in their work environment (62%), more productive when they can make things the way they want (57%), and more efficient (52%).
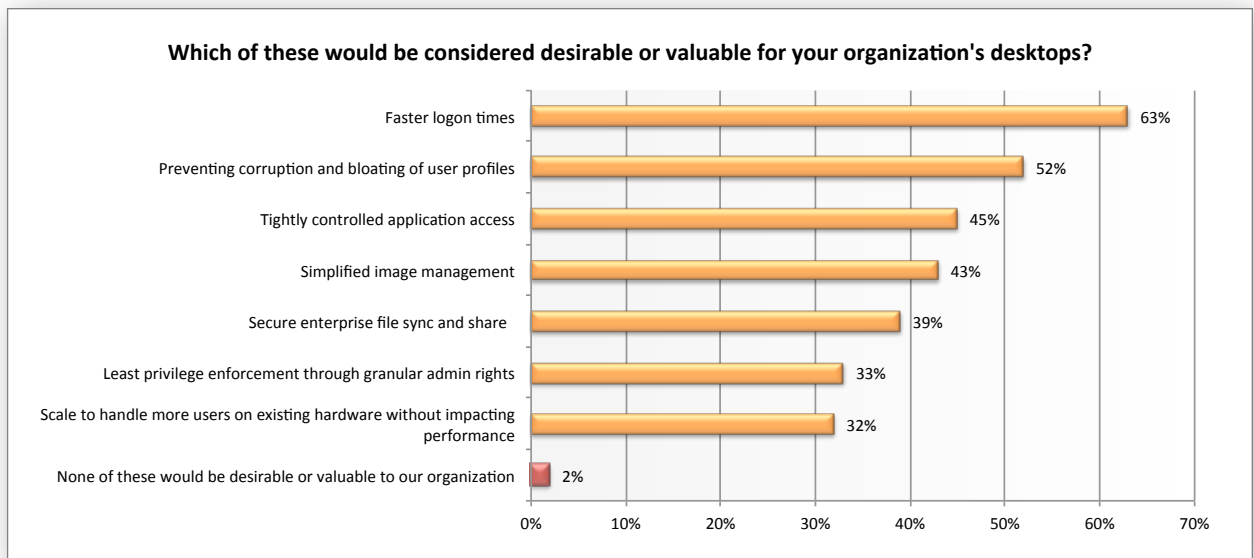
> "Users can do anything they want except install applications. Arrange icons how they like, add favorites, add pictures, save music. We try to give them a very nice working environment and feel that they are working in a comfortable zone." – *Manager of Desktop Operations, Retail, France*

Similar to business users, when IT allows personalization that aligns with company security policies they also realize its business value. During our interviews, a senior engineer communicated how she saw this play out firsthand during an initial VDI deployment where personalization was extremely limited and then allowed. "We delivered a standard desktop with the corporate logo and we got a lot of complaints because before they could have pictures of their vacation or their kids. We did end up prioritizing and figuring out a way to provide that option because this kind of thing can lower the pleasure of the workplace."

IT Sees Tremendous Value in UEM Solutions

Implementing UEM solutions is one way organizations can help transform the user experience for their employees. These solutions typically enable IT to centrally set up, secure, manage, and personalize desktops across physical, virtual, and cloud platforms, while improving the user experience.
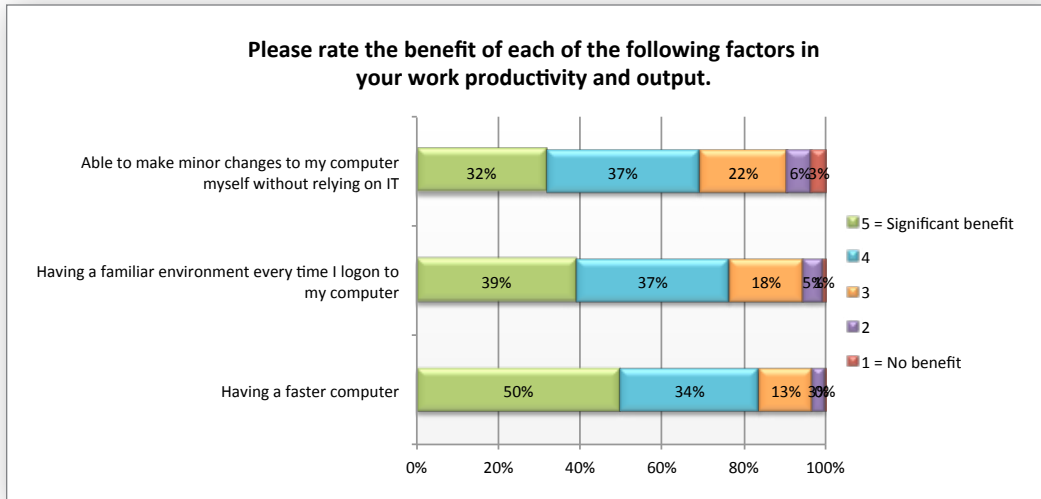
When asked about the efficacy of UEM solutions, 98% of IT professionals see the value in such solutions. The most preferred benefits include faster logon times (63%), the prevention of corruption or bloating of user profiles (52%), and tightly controlled application access (45%). Only 2% of participants say none of these benefits would be desirable or valuable to their organizations.

Which of these would be considered desirable or valuable for your organization's desktops?

Faster logon times	63%
Preventing corruption and bloating of user profiles	52%
Tightly controlled application access	45%
Simplified image management	43%
Secure enterprise file sync and share	39%
Least privilege enforcement through granular admin rights	33%
Scale to handle more users on existing hardware without impacting performance	32%
None of these would be desirable or valuable to our organization	2%

As mentioned earlier, VDI implementations often cause specific problems that UEM solutions were designed to solve. However, IT may find benefit in deploying a UEM solution in parallel with VDI to solve these problems.

Business users agree on UEM's potential to improve desktops

Even business users who are not the primary purchasers of UEM solutions agree that the potential benfits can make business users more productive. According to this group, the most significant benefits affecting their work output are having a faster computer (50%) and a familiar environment every time they log on (39%).

Please rate the benefit of each of the following factors in your work productivity and output.

Factor	5 = Significant benefit	4	3	2	1 = No benefit
Able to make minor changes to my computer myself without relying on IT	32%	37%	22%	6%	3%
Having a familiar environment every time I logon to my computer	39%	37%	18%	5%	2%
Having a faster computer	50%	34%	13%	3%	0%

Conclusion

The best user experience is when the corporate desktop just works, with fast logons, applications performing at their peak, and speedy file access, all within a familiar, consistent environment. The participants in this study consistently reported that when this happens, organizations reap significant benefits, including increased employee productivity, efficiency, and engagement.

In addition, our research reveals that both IT professionals and business users validate the potential value of UEM solutions to help enhance the desktop experience for all employees.

> "First and foremost, a good user experience is when they turn on their PC each morning and it boots up the same. There are no problems and it doesn't take too long and it all looks the same." – *EUC Engineer, Financial, U.S.*

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