

The Smart Executive's Guide To **Modern Workplace Experience**

A New IT Strategy Framework Maximizing Employee
Experience & Productivity While Optimizing Costs

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Introduction

If the last two years have shown us anything about making impactful IT investments, it is that creating an outstanding employee experience is just as important as optimizing customer experiences.

While a Modern Desktop will provide a great user experience to a large number of your users, it isn't a holistic strategy that weaves together all the experiences someone has with our organization. Gartner calls that the Total Experience (TX). The analyst firm predicts that ***"by 2024, organizations providing a total experience will outperform competitors by 25% in satisfaction metrics for both CX and EX."***

We have taken this somewhat abstract concept and translated it into a Modern IT Strategy methodology we call Modern Workplace Experience. While Modern Desktop Enablement/Management/Optimization are all part of the process, Modern Workplace Experience is more of an agile decision framework in which IT teams can operate to decide on the ideal configurations that offer each of their users the most powerful machine they need while saving costs wherever possible.

Essentially, it is an analysis of your current IT environment, a strategic analysis of your future state requirements, and actionable insights/recommendations to improve your Modern Workplace.

I am really thrilled to walk you through the details in this Executive Guide, so let's get started.

David Butler-McAllister
Chief Operating Officer

About the Author



David started his career in finance as a management accountant for the Bank of England, having stumbled into this role while originally applying for a position as a Junior Bank Note designer!

While mathematics landed David his first Job, David's personal interests were in the arts and computing — since the days when 3 and ¼ inch floppy disks were all the rage!

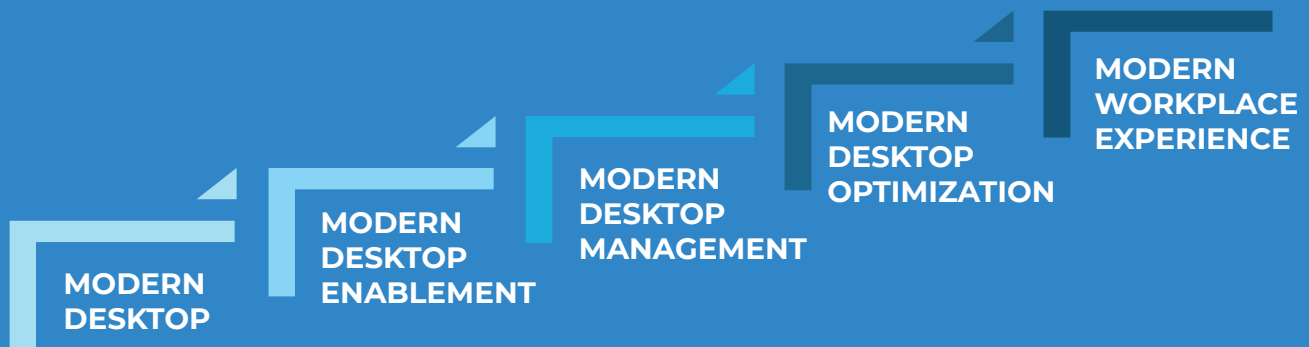
David's unusual combination of finance mixed with computing and creativity has helped him establish and further his career in technology. With a technology career spanning over 20 years, David has worked in senior management positions at large Global Banks.

David is recognized as an industry leader in Application Management and applied Automation.

David has a history of building large operational teams. His entrepreneurial methods set him apart as a thought leader in the design and implementation of Automation. David co-founded Access IT Automation to share with the world “The Art of the possible”.

Outside of technology, David pursues his passion for drawing and painting when he's not being a taxi service for his three children with dancing and tennis commitments! David is a collector of various pieces of work from his favorite artist, Dylan Izaak.

What is Modern Workplace Experience?



1 Modern Desktop

By Microsoft's definition, a "Modern Desktop" or "Modern Workplace" is a physical device that runs the latest or at least a currently supported version of Windows, provides its user with the latest productivity tools (Office 365 / Microsoft 365 / Software-as-a-Service / Web apps), and allows the user to work from anywhere without loss of productivity. In addition, all Modern Desktops are continuously updated and managed by IT using **Microsoft Enterprise Mobility + Security(EMS)** and take advantage of Microsoft's security features.

2 Modern Desktop Enablement

Modern Desktop Enablement is the initial migration onto the Modern Desktop and the setting up of the organization for successful Modern Desktop Management. While this sounds simple, it can be anything but. Modern Desktop Enablement can involve:

- Cleaning up the application estate (via normalization, categorization, rationalization, etc.) and adopting modern applications by packaging legacy applications in modern app formats,
- Migrating the entire estate to the latest version of the Windows OS,
- Moving all users to Office 365 or Microsoft 365, and
- Implementing Evergreen IT management tooling, processes, and practices to constantly upgrade the estate (e.g., migrate to the latest OS) and test applications against the latest releases.

3 Modern Desktop Management

Once you have enabled your Modern Desktops, you will now need to maintain them as such. This is what we refer to as Modern Desktop Management. This simply refers to any activity that keeps your devices as Modern Desktops, such as upgrading to the latest version of Windows before the support ends, constantly smoke testing your applications against the new environment, and so on.



4 Modern Desktop Optimization



While there are some optimization components in there (like applying patches and security fixes to improve the health and stability of your estate), Modern Desktop Optimization is a form of Modern Desktop Management that goes a little further.

For example, with optimization, you would continuously be monitoring your environment for security threats, performance losses, and other signals which indicate that the health, stability, and/or performance of your environment is decreasing. However, for me, the difference is arguable, as management should always include an optimization component.

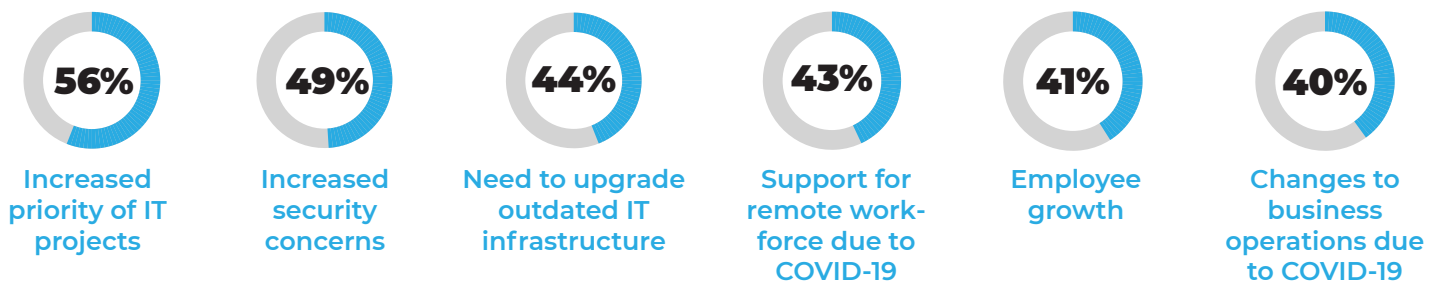
5 Modern Workplace Experience

Modern Workplace Experience refers to the measuring, benchmarking, and visualizing of insights gained by overlaying data (from devices, applications, users, networks, etc.) to improve the health, stability, and performance of the IT environment with the ultimate goal of providing the best Employee Experience (EX) possible.

This includes evaluating your applications for suitability and performance as well as right-sizing your virtual environments to match the requirements of your users' personas. Modern Workplace Experience is an agile concept and therefore is constantly adapting and improving rather than being static.

Why is Modern Workplace Experience Important?

According to [SWZD State of IT 2022](#), 63% of companies with more than 5,000 employees are planning to increase their IT budget in 2022 — 67% in the financial services sector. As explained in the report (in which more than one answer was possible and percentages were not cumulative), this budget increase is primarily driven by :



Organizations are driving their Digital Transformation initiatives forward in full force (now fueled even more by COVID-19 related changes to their business operations) while moving to a Modern Desktop.

Digital Transformation aims at providing customers with the best possible digital experience with their brand. However, when we all suddenly had to shift to remote work at the beginning of the pandemic, the vast majority of companies were unprepared. It crassly highlighted the lack of focus on employee experience which, coupled with the “You Live Only Once” attitude of the Great Resignation that followed suit, had a huge impact on talent retention.

In other words, employees expect to have the best possible user experience and performance regardless of where they work, and without this, they might look for a job elsewhere that offers a better technology experience. In addition, office aesthetics and interior design can play a role in employee experiences. Therefore, IT is sometimes given the task of replacing clunky old machines with a cleaner setup (consisting only of a mouse, keyboard, and screen) that flows better with the modern office decor.

Finally, to maximize employee productivity and happiness, companies are also seeking to minimize operational costs for their employees' physical devices in an effort to save on costs overall. With Cloud-managed Desktop-as-a-Service or a hosted Virtual Desktop Infrastructure (VDI), you pay a subscription to use a vendor's technology that is hosted on the vendors' infrastructure. In exchange, you can hold the company accountable for service levels that guarantee the best employee experience.



By 2025, 50% of IT organizations will have established a digital employee experience strategy, team, and management tool, which is a major increase from 5% in 2021.

- Dan Wilson, Autumn S.



By 2025, more than 75% of organizations will use cloud-powered patching capabilities for Windows and third-party applications in place of on-premises-based solutions.

- Tom Cipolla



By 2025, desktop-as-a-service spending will double the 2021 levels; however, it will be the primary solution for only 20% of workers.

- Craig Fisler



By 2025, 80% of organizations that rolled out bring-your-own-PC initiatives will have relegated them to niche use cases, due to poorly defined goals and support issues.

- Leif-Olof Wallin, Steve Kleynhans

The Holy Trinity of Modern Workplace Experience

A Modern Workplace Experience is made up of constant modernization and optimization of the interconnectedness of users, their devices, and their applications. For example, if an employee's role changes within the organization, so should his device and installed/utilized applications.

The setup consists usually of VMWare, Microsoft 365, Azure Virtual Desktop, Citrix running the latest version of Windows 10 or 11, and containerized applications (MSIX, app attach, etc.). It can also include Microsoft's Cloud PC.

This can manifest in all types of scenarios. However, the most common way to distinguish between different setups involves combining on-premise vs. off-premise and stateful vs. stateless. For example:

- On-Premise Stateful Virtual
- On-Premise Stateless Virtual
- Off-Premise Stateful Virtual
- Off-Premise Stateless Virtual (Desktop-as-a-Service)

There is no one recipe for the perfect Modern Workplace Experience setup as it depends on the needs and requirements of the user — and since these can change over time, we will need to adjust our IT environment to reflect that.



Your Path To Modern Workplace Experience

Just as “One Size Fits All” never truly fits anyone, the Modern Workplace Experience setups have to be tailored as close to individually as possible without sacrificing the cost savings and scale you are trying to achieve.

This is known as T-Shirt Sizing (small, medium, large) based on user persona. You are adjusting your VDI while considering your:

- Application dependencies and usage patterns,
- Required hardware performance and suitability (e.g., Windows 11 requirements),
- Network latency for access from the current position to the data center where VDI resides (on-prem), and
- Optimized data center capacity to meet the demand of the user base.

Decision Point #0: Assessment Of Current State

Before you can make any decisions about your future state, you will need to assess your current IT environment. A few questions you can ask yourself here are:

- How many of my devices currently meet Windows 11 hardware requirements?
- How many meet the minimum hardware requirements for a specific user persona, resulting in a bad user experience? How many far exceed the maximum requirements, resulting in overpaying?
- Which devices are at the end of their warranty period and need replacing?
- How much of my application estate is already modernized?
- Which applications are suitable for containerization?
- Which applications aren't used and can be rationalized?

Access Symphony provides you with an exact 360-degree view of your environment. This, coupled with Access Capture's application packaging and testing insights, provides you with powerful analytics of your current state.

Decision Point #1: Stateful vs. Stateless VDI

Once you know where you stand, you will need to decide where you want to go. The first milestone is to decide between stateful and stateless VDI. [Check out this recent article to learn more about the advantages and disadvantages of stateful versus stateless VDI.](#)

One way to determine whether to use a stateful or stateless VDI design is to talk about something like T-Shirt Sizing, which is a relative estimation technique that can show some of the metrics that determine what approach should be used. For example, company leaders can brainstorm, looking at key stakeholders and dependencies, to figure out from identity and access profiles whether stateful VDI is necessary or not.

They may look at how many hours a given user spends on a VDI system, or what their role is within the company. Again, if this is someone who is responsible for long-term planning, they're probably going to need a stateful VDI environment. If, however, they are a service level end-user who just uses the VDI to achieve one customer transaction at a time, then stateless VDI may be fine.

In addition, a few special users (e.g., traders or certain developers) can be given a dedicated, high-powered physical VDI machine known as a Moonshot. This machine is racked in a data center and dedicated to a single user who only has a keyboard, mouse, and screen. This setup looks the same as the analyst sitting next to the high-powered machine user, which can be an important consideration when attempting to achieve a certain aesthetic on a new office floor.

Decision Point #2: Application Strategy

Depending on your stateless versus stateful decision, you will have to decide on your application strategy. For example, while stateless VDI is very cost-effective, it requires a lot from an application modernization and management perspective.

You can only move those users to a true Modern Desktop if they use applications that can be containerized (e.g., AppVolumes, MSIX, app attach, Cloudpaging, App-V) and have no on-premise dependencies (e.g., on-premise Oracle database). Therefore, it is important to understand that there is only a certain percentage of applications that can be brought over to work on Cloud Desktop / DaaS (such as cloud-based apps like Office 365 but not your custom-developed banking app). Others, e.g., VMWare hosted VDI in a data center, might require a firewall network tunneled connection.

This means you have to define your application strategy very carefully. [Read more on which challenges to expect when modernizing your application portfolio to work on a Modern Desktop here.](#)

Decision Point #3: Technology Stack

Once you have decided on your VDI strategy and, based on that, have defined your application strategy, you will need to create your optimal technology stack (e.g., How will you manage deployment?). This requires very tight Evergreen IT management based on data-driven insights which allow you to be agile about your future state. For your technology stack, this means you need to have desktop monitoring and digital user and asset health scoring tooling to be able to keep on top of your Modern Workplace Experience.

Challenges On The Path To Modern Workplace Experience

Finally, let's have a quick look at what sort of obstacles or challenges could stand in your way on your path to Modern Workplace Experience.

1 App Suitability

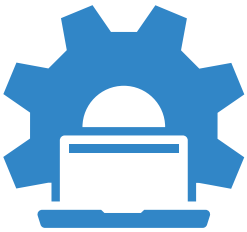
Whether your organization has a couple hundred or over a thousand apps, if one app can't be used in a modern desktop environment, then you will not be able to move over that segment of employees that uses that app. That is why it is critical to know which apps are suitable. Without knowing this, you won't know which groups can be migrated. For the groups that have problematic apps, there are a couple of options. First, you can evaluate the usage of the app to see if it is even needed. Second, your organization can evaluate competitor apps to use instead.



Using Access Symphony, you can easily determine the usage of the apps, which will also help you determine what kind of virtual offering you will need for those users. And for the initial testing of your app estate, as well as any new apps you need as replacements for problematic LOB apps, Access AppScan can automate the testing process, turning an hours-long process into minutes.

Part of moving to a modern desktop involves going beyond app compatibility. You want your build to be lean — not bloated with fat MSIs or App Volumes. Stream or containerize your apps so you can keep your VDI storage as light as possible. Using AppScan, you can determine which apps are better suited for a modern environment, instead of settling for apps that are just suitable.

2 App Personalization



While the importance of app suitability is obvious (if the app won't work, then it can't be used), what is just as important is app personalization because, if using the app constantly leaves the user frustrated, then the app might as well not be there. For instance, when a user logs out and back in, they might get a different hostname, so the application needs to follow the user regardless of hostname.

Additionally, the personalized user settings need to be sticky so that not only does the app open, but it also looks and acts the same each time, preventing the user from wasting time while redoing their settings. The user component settings need to be broken out and delivered via a policy or another method, and the apps should be delivered separately. FSLogix can be used for personalized settings on Microsoft products, and DEM can be used for VMware App Volumes.

3 Hardware Specific Issues

Hardware issues, as in connections to a specific piece of hardware, can be another challenge in moving onto a modern desktop. While the issue might not be widespread across an app estate, chances are that the hardware and peripherals are essential for the business. Such hardware can be scanners, printers, card scanners, card readers, ultrasound machines, other healthcare machinery, etc. Knowing ahead of time how many devices in your estate rely upon using these peripherals, and if there is an issue or not, is key to your modern desktop planning.



4 Audio & Video Issues

Since communication tools like Teams, Zoom, Skype, etc., have become so crucial to a company's day-to-day operations, it is essential to have your audio and video not only work, but work at the same high level you expect when connected on a desktop machine. The aforementioned apps have hardware passthrough, which allows them to work in a virtual environment, but they need optimization.

For instance, when a headset (Jabra, Logitech, etc.) is plugged into a device, the application needs to understand the difference between being on AVD and being on a laptop because, if it doesn't, the user can end up sounding like they are underwater or have other issues. This requires optimization of the graphics cards on the physical devices in the data center so the hardware passthrough works. Software like Citrix HDX, VMware Horizon, etc., can be used to optimize these settings so the passthrough works.



5 Testing



Once all of the aforementioned issues have been solved, it can be quite easy to go ahead and start migrating users onto a virtual environment without a second thought. However, overlooking testing at this point can be a huge mistake. Are all of the personalization settings really sticky? Is your desktop the same after a log-off/on? Is it the same on multiple hosts? Is it the same on different hardware setups?

The purpose of all this testing comes down to this: How good of a user experience (UX) do you want your end users to have? A frustrated end user is not as productive or engaged as they could be. Plus, if an end user has to waste 10-20 minutes a day on settings, and you multiply that by 20,000 users, and then by the number of working days in a year, that is a significant amount of lost time that is costing your company money. This doesn't include help desk tickets submitted for issues the user can't fix themselves, which involves the use of even more resources.

Using Access Capture, these tests can be automated so that they are performed quickly. Any issues that are found can be worked on and resolved so that the user/app/hardware will be ready for a virtual environment.