riverbed | Aternity

EBOOK

How Organizations Are Leaning into Technology Investments in 2022

Enterprises spent heavily on digital tech to keep business up and running during the pandemic. This year, they'll seek to get even more out of those investments.

The Rapid Evolution into a New Technology Landscape

Researchers once believed that evolution in nature occurred slowly over time. But now, most agree that evolution happens quickly, usually in response to a catastrophic event. In a way, this is exactly what we've seen play out over the last 20+ months as a result of the COVID-19 pandemic. The traditional workplace abruptly shifted from an office to a digital environment almost overnight, forcing organizations to quickly redefine their technology needs.

While some organizations offered or were experimenting with remote work prior to 2020, when the pandemic struck, managers had no choice but to adapt their operations quickly and find ways for their team members to work productively from home. It led to rapid investments in disparate technologies and band-aid solutions targeted at ensuring business uptime.

But what was initially thought to be a temporary stop-gap has become the new normal. Employees are requesting, urging, and even forcing their organizations to adopt a permanent remote or hybrid workplace.

And with near total reliance on a bevy of apps, software, and devices, IT departments must manage and monitor the digital experience for employees and customers to ensure their satisfaction and business continuity.

In this eBook, we'll explore how the digital experience, combined with new needs and insights, is driving organizations to make smarter and more strategic decisions to get the most out of their technology investments.

The Migration to Windows 11 Will Rock Workplaces

Enterprises rely heavily on Microsoft's premier OS to run their digital operations, and connect internally to team members and externally to customers. In fact, there are 1.5 billion Windows operating systems (OS) in use across multiple versions worldwide. But there are still a number of organizations with an outdated OS in place; over 100 million devices still running on the outdated and no-longer supported Windows 7.

With the recent release of Windows 11, it's a fair assumption that many organizations will make the transition to the latest version of the OS. After all, Windows 11 is redesigned for hybrid work and security, and comes packed with new features, including the ability to download and run Android apps, updated Microsoft Teams integration, and significant security enhancements.

But, perhaps most notably, the biggest change with Windows 11 will be the discontinuation of Internet Explorer (IE) as Microsoft seeks to retire it in favor of its Edge browser.

Before organizations can take advantage of these new features, they must first ensure their devices meet the minimum requirements to be compatible with Windows 11. These requirements include:

- A compatible 1 GHz or faster dual-core 64-bit processor from Intel, AMD, or Qualcomm
- 4GB of RAM
- 64GB of storage
- UEFI Secure Boot supported and enabled
- A Trusted Platform Module (TPM), version 2.0
- A DirectX 12-compatible GPU with a WDDM 2.0 driver
- A 720p display larger than 9 inches in size

Though it may seem like the requirements for a Windows 11 transition are demanding, it's for good reason: new security components.

Though the world of cyber threats isn't new, Microsoft's New Security Signals study found that more than 80% of businesses experienced a firmware attack. Windows 11 comes with built-in hardware-based isolation and proven encryption to provide organizations with enhanced protection against malware.

So what does this mean for businesses? Well, frustration, for starters, as many IT departments will likely discover some or all their devices can't support Windows 11. And those businesses that are able to successfully make the transition will find themselves beset by interoperability issues between the new OS and past iterations.

Then there's the matter of Internet Explorer. While the browser may have fallen out of favor among consumers, it is still a common browser for workplace intranets. Disabling IE will require these organizations to develop new internal processes; many IT departments will simply hold off on migrating to Windows 11 until a new intranet solution can be put in place.

To Wait or Not to Wait? That Is the Question.

With the significant features and specs required for organizations to transition their fleet of devices to Windows 11, it's little wonder that so many are choosing to wait to complete the migration. But how long is too long to wait?

Consider, for example, the security benefits of Windows 11. The delay in transition could increase the risk of a security incident as older versions of the OS may lack the adequate protection or processes to divert a threat actor.

Additionally, organizations will likely discover compatibility issues, and this isn't just in regards to IE and intranet usage. The new version of OneDrive, for example, is not compatible with Windows 7, 8, or 8.1. Personal OneDrive desktop applications running on these operating systems will stop syncing to the cloud on March 1, 2022.

Microsoft is extending support for users running OneDrive for business on Windows 7 and Windows 8.1 until January 10, 2023 (Windows 8 support ended on January 12, 2016). Though OneDrive users will still be able to access their files after support ends, they will no longer automatically sync with the cloud.

Windows 11 will help businesses work smarter in the hybrid work environment. But as is always the case with change, organizations need to ensure they are prepared. From navigating feature and spec requirements to effectively monitoring the employee and customer digital experience as the organization migrates to Windows 11, preparation will be critical to ensure there is no negative impact on business outcomes.

Technology Can Be the Enemy of Sustainability

In order to ensure a habitable planet for the future, humans are looking to:

1. Change human behavior in a way that's more mindful of the environment, and
2. Develop and adopt the latest and greatest tech that can help us reduce our carbon impact.

Renewable energy generation, electric vehicles, and more efficient devices, among others, are all supposed to help in our conservation efforts. But the digital technologies we use both personally and professionally might be hindering our quest for sustainability.

According to a 2019 report from carbon think tank The Shift Project, digital technologies now emit 4% of greenhouse emissions. To put that into context, the global aviation industry produces around 2% of all human-induced carbon dioxide emissions.

What's worse is that the 4% credited to digital tech could actually double by 2025 – an amount equal to current automobile emissions.

Digital technologies emit 4% of greenhouse emissions, more than the global aviation industry, which produces around 2% of carbon dioxide emissions, according to a report from The Shift Project.

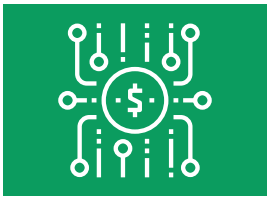
The production of digital devices (including computers, televisions, smartphones, tablets) and the use of terminal centers, data systems, and networks all consume an extraordinary amount of energy – 80% of which still comes from fossil fuels worldwide. This poses a problem for organizations that have established sustainability initiatives but are relying even more now on digital technologies to keep their distributed, hybrid workforce connected and productive.

In fact, the hybrid model could spell disaster for enterprises in meeting their goals as the office remains open (illuminated, heated, and cooled) while only occupied by a portion of the workforce. And, perhaps ironically, the hybrid model actually results in greater energy consumption than if everyone worked from the same location. After all, employees logging in from home or another location still need to turn on their own lights, A/C or heating system, and use the internet to get their work done.

The topic of sustainability will only grow in significance. Every organization will be under increasing legislative and reputational pressure to reduce their environmental impact with clearly defined and measurable goals and achievements. Enterprises are looking for new ways to increase sustainability by closely examining their digital ecosystem to identify new ways to reduce their carbon footprint.

Some of the ways enterprises can reduce the carbon footprint of their digital ecosystem include:

- Monitoring energy consumption across the entire digital ecosystem to identify devices that are using more energy than usual.
- Enacting smart device refresh policies based on the performance of devices rather than their age.
- Identifying wasteful digital behavior like unusually high print activity and idle machines.



Leaning into Digital Technology Transformation Initiatives

While digital transformation initiatives have been in the works for years, they were forced to accelerate dramatically in March 2020 at the outset of the COVID-19 pandemic. The urgent need to find solutions to ensure employees could remain productive regardless of where they were working from resulted in a significant investment of disparate technologies. In fact, many organizations invested in technologies that provided overlapping capabilities.

The lightning quick ramp up in digital technology adoption led to shadow IT — the purchasing of information technology systems, devices, software, applications, and services that have not been approved by IT departments. It's also not uncommon for departments within organizations to have purchased different digital products or services that do the same things, leading to inefficiencies, redundancies, and a waste of limited financial resources.

It falls on IT departments to manage all of the disparate technologies used by their organizations, and they need help to navigate the increasing demands with the same — or fewer — staff to get the job done. All of this means more technology, more data, more speed, and, therefore, an increased — and perhaps more critical eye — on both performance and the employee experience. But it also means too many sources of telemetry, too much data, and a lot of suboptimal experiences.

Fortunately, AI can help IT professionals sort out the jumble of data and telemetry so users have better experiences. Leveraging AI-enabled technologies allows IT teams to more efficiently determine what to focus on, where the problems are, and how to predict performance and capacity issues.

Evolving to Where the Customers Are

Customers today are no longer using just one fixed channel; they use all of them, all of the time. So the customer experience must be measured and managed across every channel at all times. AI can help in breaking down silos between the customer experience and employee experience resulting in greater happiness for both.

Many enterprises are looking for unified solutions that provide complete visibility across all the technologies used by their people. Aternity OpenTelemetry Analytics can help by providing end-to-end distributed tracing and analytics across complex cloud and microservices environments in the context of user business activity. It not only presents a holistic view of a distributed network, it connects the dots between the network view and the customer view.

Additionally, Aternity User Journey Intelligence leverages both synthetic monitoring and RUM so IT teams can measure the digital experience of every application involved in the customer journey – from unique paths through the website to the business-critical apps used by employees who support customers throughout the buyer experience.

The digital technology organizations rely on generates oceans of data. By 2025, 200+ zettabytes of data will be in cloud storage around the globe. When it comes to the digital workplace, AI is capable of navigating through all this data to provide actionable recommendations to decision-makers. In fact, AI-enabled technology solutions can deliver insights into where to improve performance, where to add capacity, which vendors to use, which models to leverage, and where to invest money for the greatest business impact.

By 2025, 200+ zettabytes of data will be in cloud storage around the globe.

An area to watch: CIOs will be measured on the business impact of their transformation agenda. Those who are able to successfully implement automation and AI systems into their operations and processes will position themselves and their team to reach their milestones. These executives must be able to project top-line business value (revenue, engagement, satisfaction) of projects as a way of prioritizing spend and validating the payoff of investment in their organization's digital technology transformation.

2022 will see more organizations lean into automation and AI to help IT simplify the complexities that have come with the digital tech transformation. IT will become more focused on business outcomes, and those outcomes will meet at the intersection of the employee and customer journey.

Riverbed | Aternity Makes Your Tech Investments Work Smarter

All investments are measured in their returns, and the investments organizations made to expand their digital technology and collaboration tools have done well in maintaining productivity during the challenges brought on by the pandemic. Riverbed | Aternity provides enterprise-scale analytics to enable continuous improvement through actionable insights across every aspect of an organization's digital footprint. With Aternity's Digital Experience Management (DEM) platform, organizations can contextualize data across every enterprise endpoint, app, and transaction to improve the user journey and enhance ROI.

Windows 11 Migration

With the migration to Windows 11 already in play, organizations can leverage Riverbed | Aternity to perform a Windows 11 compatibility check on their entire fleet of devices. By executing this during the planning phase, IT can identify devices that will need to be replaced and those that will need an upgrade to run the new OS.

Intel Manages Device Fleet with Riverbed | Aternity

Intel, which counts over 150,000 employees and contractors worldwide, ran into the challenge of keeping its team members as productive as possible. Analytics, surveys, and focus groups revealed that many Intel employees were having inconsistent, if not poor, digital experiences largely due to PC performance.

The company looked to manpower, homegrown tools, and task forces in hopes of optimizing and delivering a consistently high-performing digital experience for its workers. It also researched outside sources that could help in gathering intelligence and telemetry; that's when it turned to Aternity DEM.

Aternity DEM provided a cloud-ready solution that delivered fleet-level analytics from both a platform and applications standpoint. Intel IT deployed Aternity DEM on 10,000 employee devices in less than one week. The company targeted four key factors to measure and understand the health of end user devices: reliability, user frustration, performance, and connectivity.

These insights, made possible by data obtained through Aternity DEM, paved the way for more uptime, productivity, and cost savings. Aternity DEM now helps Intel resolve issues predictively and proactively, ultimately leading to increased employee happiness.

Getting Creative with Existing Technologies to Reach Sustainability Goals

Organizations looking to reach their sustainability goals without making additional technology investments can rely on the Aternity DEM Platform. The platform provides a wealth of intelligence around dirty data, idling machines, power consumption, heat output, print volumes, e-waste, and eco-friendly machines, among others.

In fact, Aternity DEM offers insight into the business impact of the customer and employee digital experience by capturing and storing technical telemetry at scale from employee devices, every type of business application, and cloud-native application services.

CIOs and IT departments that are measured on business outcomes can further boost their prospects for success by delivering positive user experiences through Aternity Digital Experience Index (DXI). DXI automatically calculates an overall digital experience score and identifies the specific areas needing improvement to create more satisfying digital experiences for both employees and customers.

Additionally, DXI enables an organization to effectively compare its digital experience against industry benchmarks to make more informed investment decisions. Aternity DXI even reveals the business impact of potential improvements on employee productivity.

Work Smarter, Not Harder

Riverbed | Aternity helps maximize returns on digital technology investments by providing User Journey Intelligence that unifies digital management for customers and employees. It contextualizes visibility across complex web environments, enabling organizations to improve satisfaction, drive revenue, and optimize both the customer and employee experience. This insight presents a complete view of the business impact of the digital performance by correlating user journey analytics with performance data of associated transactions across cloud-native environments.

Don't Make Them Wait: Enhancing the User Experience

An online retailer increased revenue by more than $1M per year by optimizing the loading of first-party content on their store catalog page to load within 200 milliseconds, while also identifying loading delays in third-party content.

While the previous few years saw organizations rapidly adapt to an increasingly digital and remote workplace by making various technology investments, 2022 promises to cement those changes and welcome new ones.

But change can be a good thing, especially when you have a trusted partner that helps you obtain actionable insights and guides you in making continuous improvements to the digital experience. Riverbed | Aternity can assist you in effectively navigating changes so you can elevate your users' digital journey, leading to greater satisfaction and better business outcomes.

To see how, sign up for a free trial.