THE PERFECT STORM OF END-USER COMPUTING
How to centrally manage applications, files and desktops across physical, virtual and mobile environments.

ABSTRACT
For the past two decades, end-user computing in the enterprise has been mostly about users peering through the Windows® of Microsoft® to see their workspace. Today’s reality is significantly more complex. Users continue to operate in Windows environments, but to do their jobs, they also require ubiquitous connectivity to new software delivered as a service and cloud-connected applications — and, increasingly, they require access to both on a growing variety of desktops, laptops, smartphones and tablets. As such, IT organizations are struggling to unify the user experience to the mutual benefit of the user, the business and IT. The key to successful management of end-user computing is to transcend the management silos that IT has created around physical systems, virtual desktops and mobile devices. VMware can uniquely help IT organizations create greater efficiencies across this diverse environment and reduce management costs associated with end-user computing.

CONVERGENCE AND CHANGE
For decades, users have been tethered to a single desktop or laptop running Windows, purchased by the company and provisioned and managed by the IT organization. Today, IT departments still own and operate many physical Windows systems but have also introduced new ways to arm the workforce with computing resources, such as virtual desktop provisioning.
In recent years, two important fronts have converged: traditional end-user computing on Windows computers and use of smart mobile devices, with users requesting popular new applications they have experienced on their consumer mobile platforms. This convergence has created a perfect storm of physical, virtual and mobile user management requirements — a large and growing storm localized around each user, with no centralized management.

HOW WE GOT HERE

Widespread use of PCs in businesses coincided with the release of Windows 3.1 in the early 1990s. For most of the two decades to follow, end-user computing was synonymous with Microsoft Windows as they evolved together. A single Windows computer became a user’s electronic workspace because it provided everything that user needed to do his or her job — corporate-approved applications, data and an internal network connection. Because end users’ PCs ran Windows, IT departments and the industry at large learned to manage and support Windows endpoints. Each user had one device, connected to one network, and used corporate applications on one operating system.

Then, always looking for ways to improve management efficiency, IT organizations were eager to build on the virtualization success they had seen in the data center by extending it to endpoints. Many businesses found that virtualizing desktops with a virtual desktop infrastructure delivered real benefits, including:

- Greater value through economies of scale
- Improved and simplified security
- Lower total cost of ownership associated with desktops
- Simpler centralized management

CURRENT REALITIES CALL FOR CHANGE

Today, of course, end-user computing looks very different. Windows-based PC sales are in sharp decline, while tablet and smartphone sales continue to climb. This trend demonstrates what users and IT professionals already know: Cloud-connected mobile devices running non-Windows operating systems and applications are quickly becoming the preferred work platforms for business. This revolution has been fast, even by modern technology’s standards — a mere four years ago, no one thought of tablets as serious business tools, and relatively few users owned smartphones.

However, the endpoint management model that evolved along with PCs has not kept pace with the rapid evolution of devices. As a result, organizations are continuing to struggle with ongoing maintenance and management of physical endpoints while working to contain the cost and complexity associated with traditional tools amid explosive endpoint volume and diversity.

By virtualizing some desktops, many organizations have achieved a degree of relief from the rising cost and complexity of endpoint management. They have also realized further value from their desktop infrastructure through greater security and lower TCO. Desktop images stored on data center servers are more secure and easier to manage centrally. Even so, organizations often manage physical and virtual desktops differently, requiring different tools, processes and skills. Adding to the complexity, the enterprise user workspace has evolved to include not only traditional physical PCs and virtual desktops, but, increasingly, new and diverse mobile devices.
A NEW APPROACH IS NEEDED

Traditional physical endpoint management approaches and even more current mobile options such as mobile device management (MDM) are proving to be ineffective ways to manage a modern mobile workforce and the diverse device types and operating systems being introduced. A new approach is needed, one that allows users to do their jobs anywhere, any time and on any device they choose, while allowing IT to effectively manage mobile work styles, regardless of whether work preferences are physical, virtual or mobile. To do their jobs anywhere, on any device, users need the freedom to take advantage of their local platform’s capabilities and to access applications and data whether they are connected to a network or not.

TRANSFORM END-USER COMPUTING

At its foundation, this new approach shifts its focus from management of individual devices to management of a virtual user workspace. By combining applications and data into a single enterprise-class aggregated workspace, securely delivered on any device, IT can achieve simpler, centralized, policy-based management, regardless of mobile device and operating system diversity. Such a solution is characterized by the following:

- Desktop image management tools that simplify and centralize IT management while still allowing users to leverage the power of the local computing resources of their desktops and laptops.
- A common desktop virtualization platform that delivers a level of availability and agility of desktop services that can’t be matched by traditional PCs, while reducing the desktop TCO by up to 50%.
- A single workspace that provides virtual desktops, applications and data to users as brokered services managed by policies.

VMWARE HORIZON SUITE™ ENABLES THE VIRTUAL WORKSPACE MODEL

VMware Horizon Suite is such a solution. It can transform end-user computing by meeting IT’s need for manageability and users’ need to work wherever and however they choose. It enables IT organizations to securely broker and fully manage access to corporate assets from any device, wherever users are connected. IT administrators can set policies, provision desktops and applications, and maintain compliance across both public and private clouds.

Horizon Suite gives users flexible access across devices, locations and connections, which improves productivity by enabling on-demand access to desktops, files and applications — from multiple devices, both business and personal.

VMware Horizon Suite technologies provide the following capabilities:

- VMware Horizon Mirage™ gives IT the advantages of centralized management of physical desktops while end users retain the power of local execution.
- VMware Horizon View™ simplifies management, security and control of desktops while delivering the highest fidelity experience of desktop services to any device, on any network.
- VMware Horizon Workspace™ provides secure access to applications and data on any mobile device or computer, enhancing the end-user experience while reducing management costs.
THRUVE UNDER CONSUMERIZATION OF IT

Organizations can merely weather the perfect storm of end-user computing or thrive in it. The difference lies in empowering mobile work styles for greater productivity while giving IT the security and control it needs to protect corporate data. You can do both with technologies from the leader in enterprise virtualization.

Learn more today by visiting www.vmware.com/go/horizonsuite.