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The Digital Workspace: Reimagining the Workplace

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The **digital workspace** is emerging as the new end-user computing platform, securely delivering anytime, anywhere access to all apps, services and resources across all devices.

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Introduction

The digital workspace is the defining model for end-user computing in the mobile cloud era. Business is changing. Ownership models, mobile work styles, cloud computing and expectations of ever greater consumer style of computing within the enterprise have disrupted the traditional model for end-user computing. As users increasingly leverage a portfolio of heterogeneous devices and applications through wireless networks and unpredictable security environments, today's mobile-cloud era is rapidly rendering the previously dominant client-server model obsolete. This technical and cultural evolution creates unique challenges for IT, while simultaneously generating new opportunities for businesses and their users.

The global mobile workforce is set to increase from 1.32 billion in 2014, to

1.75 BILLION in 2020[1]

Today's increasingly mobile workers rely on a variety of devices and applications to accomplish tasks – via desktops, smartphones, tablets, or machine- and enterprise-Internet-of-Things (IoT) appliances. And employees want to regularly log in and out of legacy, desktop, mobile, software-as-a-service (SaaS), and cloud applications depending on the opportunity, the style of interaction, or the best set of tools for the task at hand. It is up to enterprises to meet these needs and embrace digital transformation; it's good for users and good for business.

In the U.S., the number of mobile workers will grow to **105.4 million** in 2020 and make up **72.3%** of the total U.S. workforce.[2]

[1] Strategy Analytics. "Global Mobile Workforce Forecast, 2015-2020," November 3, 2015
[2] IDC. "IDC Forecasts U.S. Mobile Worker Population to Surpass 105 Million by 2020." June 23, 2015.

Organizations are at an inflection point. Given the trends of mobile workers and the state of innovation across the industry, the market requires a new model that defines how users leverage applications, information and resources across their portfolio of devices, how IT delivers, manages and secures these applications and services, and how business can capitalize on new capabilities and styles of work to drive increased business results. Just as the desktop became the dominant, defining model for end-user computing during the client-server era, so too will the digital workspace define the model for end-user computing in the mobile-cloud era.

Two things are paramount for success: Consumer simplicity and enterprise security.

Enhance the end-user experience and simplify IT management while preserving the reliability and security aspects required for business critical applications and protection of sensitive corporate data.

Evolving Workplace Changes Investments and Expectations

Two decades ago, enterprises introduced client/server computing into their workplaces. By providing every knowledge worker with a laptop or personal computer (PC) running Microsoft Windows, companies hoped to increase individual productivity. Fast forward to today. Technologies and work styles changed. The digital workspace supports this transformation by understanding the need for simplified, unified management of all device end-points, while providing a more efficient model for delivering and managing enterprise apps to users across all of their devices. It also supports advanced security models required to protect sensitive enterprise data and intellectual property across a more mobile workforce. Unlike the desktop of the client-server era, the digital workspace is not defined by a single image. It is the aggregation of all devices and the apps and services required by users, securely managed and unified by common access and identity.

Two-thirds of companies reported they **are actively or planning to reengineer** a core business process to achieve business mobility.[3]

451 Research estimates that **the number of US workers that have access to a mobile device is approaching 100%**. As more workers gain access to mobile devices as their primary or secondary computing device the population of PC-only employees will tend to disappear.[4]

Desktop usage is shrinking overall, with **43% of tablet users saying they use their desktop PC less often**, if at all, since getting a tablet.[5]

By 2018, **95% of enterprises globally will have both a CYOD and a formal BYOD plan** in place.[6]

End-Users Demand Anytime, Anywhere, Any Device Access

End-users that bring their own devices to work simply want the applications they need, when they need them, on the devices they choose to carry. When a consumer technology works, they will use it instead of a corporate-deployed alternative. They expect self-service access and a unified experience that enhances their productivity and supports their work styles. If the organization can't deliver, bring your own (BYO) users typically find a way around corporate IT.

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[3]VMware. "State of Business Mobility Report 2015."

[4]451 Research, "Old whine in a new bottle? GSMA Mobile 360 looks at enterprise mobility," Nov. 2, 2015.

[5]Forrester Research, Five Ways To Ensure That Your Digital Workspace Initiative Doesn't Fail, David K. Johnson, July 23, 2015

[6]Gartner, "Implement BYOD, CYOD, and COPE to Serve All Employees," Oct. 22, 2015

For Users, Digital Workspace Boosts Work Effectiveness

It supports new work styles and patterns. It enables freedom of choice, providing users with a single environment to access all of their apps and services—across devices—while keeping personal and professional data separate. Imagine, BYO access to Windows, SaaS, cloud, mobile, and social apps without having to worry about continually configuring devices.

Lines of Business Envision Process Transformation

Using corporate-owned devices, lines of business are interested in delivering apps to field-based employees that enhance individual and team productivity, customer engagement, and partner collaboration. Lines of business expect to be able to give their team members access to the SaaS and corporate applications they need to be effective—from apps run centrally and displayed on any browser-based device to third-party or on-premises business-critical applications such as Salesforce or SAP.

For Lines of Business, Digital Workspace Streamlines Operations and Creates Competitive Advantage

It enables business process transformation, new forms of customer interaction, and new methods of revenue generation. With Digital Workspace, companies can effectively segment employees and ask their IT organizations to deliver specific end-user technology solutions to certain workers such as field service employees, case workers, and call center representatives. Imagine, retail managers using Android tablets to update inventory levels from the store floor; private bankers displaying data on Apple iPads during client meetings in cafes; nurses rolling mobile clinical workstations to patient besides to record medicines while field-based case workers use tablets to submit forms.

IT Organizations Want a Flexible and Secure Foundation

With responsibility for security and compliance, IT organizations want a secure yet flexible foundation that enables them to safeguard data and applications across devices. They expect to be able to centralize identity, maintain control, and service their distributed workforces through a unified platform.

For IT, Digital Workspace Simplifies the Ability to Deliver Technology

It is significantly more efficient environment to control and manage, even as portfolios grow and business conditions change, because of its automated security and access policies for users, devices, and applications. Imagine delivering comprehensive access while automating policies to always ensure the right levels of continuity, performance, security and compliance.

Digital Workspace Empowers Users While Keeping IT in Control

In the mobile-cloud era, increasing individual and team productivity remains important, but innovation is significantly higher on the list of executive business priorities. The digital workspace enables enterprises to provide secure access to increasingly mobile workforces while managing the growing diversity of applications, data and devices.

Application Delivery Transformation

With a digital workspace, end-users gain the freedom to use any desktop or device—BYO or corporate-owned—at any time while IT administrators safely automate app distribution and updates on the fly. Enterprises that deploy the digital workspace can easily embrace heterogeneity because identity access and personalization transcends every app, across every device.

Mobile and End-Point Management

To protect the most sensitive information, the digital workspace combines identity and device management, enforcing access decisions based on a range of conditions from strength of authentication, network, location, and device compliance. Shifting from a focus on endpoint management to a focus on app management, IT teams gain a uniform management experience for their entire fleet of desktops—even those upgraded to Windows 10—as well as BYO devices.
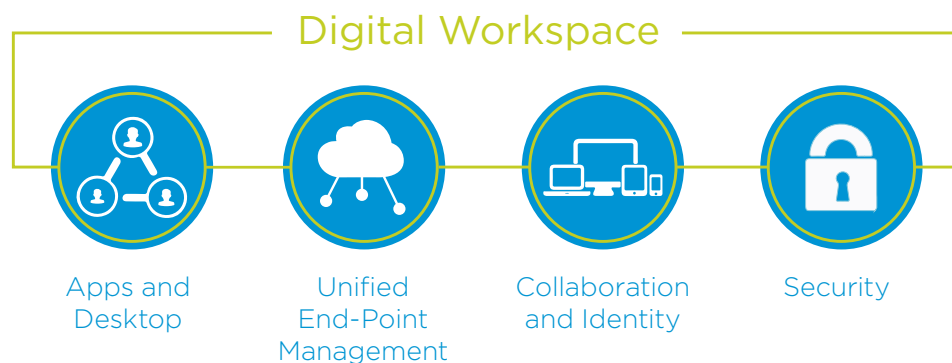
Business Mobility

The digital workspace enables enterprises to target key areas of improvement, shifting core business processes and operations to a mobile model. Across industries, enterprises are advancing business mobility initiatives. Retailers are reimaging the buying experience using tablets for "line busting" point-of-sale transactions and transforming inventory sourcing on mobile devices. Hospitals are redefining patient care, providing caregivers with mobile solutions to securely renew patient prescriptions and review x-ray results at the point of care. Schools are enabling limitless learning with personalized digital interactions anytime, any place, and by making volumes of information available on tablets, airlines are saving pilots time and reducing on-board weight.

Powering the Digital Workspace

Ultimately users want simplicity while IT wants security; users want choice while IT wants control. Enterprise companies tend to get the security part right, but often have issues with consumer simplicity. Yet, both are crucial steps in driving the digital workplace and enabling unified apps and delivery with unified endpoint management.

Users often don't care about the underlying infrastructure. They just need it to work so they can do what they need, where and when needed, whatever the tool in their hands. But those managing the lines of business are responsible for both the threat and promise of the transformation. They prioritize speed and revenue growth, while leading the initiatives to harness new markets and opportunities, or respond to new competition. IT is then tasked with satisfying both of these groups, without compromising current successes.

Server virtualization, the core of VMware, is delivered by vSphere. Virtualized infrastructure is built from this core, with storage and networking capabilities. This enables hybrid cloud computing, which can be deployed on any on-premise, private cloud, or a public cloud system. Software-Defined Data Center management and automation capabilities are added to re-innovate the SDDC.

Digital Workspace

| Apps and Desktop | Unified End-Point Management | Collaboration and Identity | Security |

The End-User Computing portfolio comprises solutions to the four pillars of the digital workspace: apps and desktop, unified end-point management, collaboration and identity, as well as security.

VMware® Workspace™ ONE™ is the simple and secure enterprise platform that delivers and manages any app on any smartphone, tablet or laptop. By integrating identity management, real-time application delivery, and enterprise mobility management, VMware Workspace ONE engages digital employees, reduces the threat of data

leakage, and modernizes traditional IT operations for the Mobile Cloud Era. By tightly integrating all these competencies, VMware is set to deliver the next generation of IT delivered: one cloud, any application, on any device.

VMware is the only vendor delivering a comprehensive end-user computing platform built on a mobile-cloud architecture that enables organizations to drive digital transformation. The combination of device management, virtualization, app modernization, and identity management capabilities enables organizations to securely deliver and manage the wide variety of applications end-users want, when they want them, on the devices they choose to carry. With VMware, users can focus on the work to be done, not the technology in their hands.

At this critical point in the innovation cycle, enterprises must make a choice between incremental change and adding real business value. VMware simplifies that decision by delivering a consumer-simple, secure enterprise platform for IT organizations to deliver and manage any application, on any device. With the VMware solution, users get a unified experience across multiple devices with ubiquitous access to applications, content, and services. At the same time, IT organizations achieve greater visibility and control of the company data being used and shared.

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