



# VDI AND THE DIGITAL WORKSPACE

Reap the benefits of a digital workspace strategy

# Introduction

Gone are the days of client-server computing where Windows ruled the day and employees were tasked with working from one device and one location.

Modern organizations are made up of different types of people with unique requirements for accessing applications, data, documents, and other digital resources. These individuals are using new types of devices, accessing Windows applications alongside non-Windows-based applications, and more mobile than ever.

The apps and devices they use—PCs, laptops, tablets, and smartphones—in the office, at home, or on the road, collectively are all part of their digital workspace. A digital workspace strategy champions flexible, employee-centric technology and processes to aid productivity and unlock the potential of individual employees, teams, and organizations.

Providing access anytime, anywhere, and on any device can cause security and management challenges for IT teams. That's where VDI as part of a comprehensive digital workspace strategy comes in.



# The Digital Workspace

Today's workers regularly log in and out of legacy, desktop, mobile, software-as-a-service (SaaS), and web applications from a variety of devices, and expect to do so with ease.

What's required now is a new model that defines how users leverage applications, information, and resources across devices; how IT organizations deliver, manage, and secure these applications and services; and how businesses can capitalize on these new capabilities and styles of work to drive better 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 moving forward.



## Digital Workspace Requirements



**End users** simply want access to the applications they need, when they need them, on the devices they choose to use.



**Lines of business** are interested in delivering apps on whatever devices employees use in order to enhance productivity, and improve customer engagement and collaboration.



**IT teams** need to centralize policy management, maintain control, and service the organization across device types.

## An Outcomes-Based Approach to IT Services

The digital workspace shifts the focus of IT away from managing things (phones, laptops, and tablets) and toward delivering application and content experiences to employees. This outcomes-based approach to IT services decouples data and applications from the device and supporting platforms, so that any application can be accessed from any device. Untethering applications from devices delivers the ultimate experience in portability and gives users flexibility in how they access the applications and services they need.

By focusing on outcomes, the digital workspace also promotes efficient IT operations by:

- Simplifying access management
- Delivering true application portability
- Enabling unified endpoint management



## How the Digital Workspace Promotes Efficient IT Operations



### ***Access management***

Today's leading IT organizations are user-centric. IT must equip end users with quick and easy access to business-critical published apps, SaaS apps, and mobile apps, and create a flexible and efficient workflow by allowing simple access with barrier-free authentication across devices. This user-centric approach empowers users to choose the ways they work best, and facilitates delivery of a highly specific set of end-user services.



### ***Application portability***

Today's users expect to access Windows applications alongside non-Windows-based applications, and demand the freedom to work anywhere, and on the devices and apps they choose.

To get the maximum benefit of a digital workspace, applications should be built for all popular operating systems, or otherwise abstracted from the endpoint to make them truly portable. For most organizations, this means virtualizing many of the applications in their inventory.



### ***Unified endpoint management (UEM)***

Migrating from device-based asset management to the digital workspace presents the perfect opportunity to rethink end-user-computing processes. Manual provisioning processes can be transferred to virtualized desktops and apps, with tremendous improvements in efficiency and compliance. With UEM, IT teams can also deploy and manage desktops, laptops, and devices—including OS deployment, configuration, user preferences, and software—from a central location.

## The Role of VDI

Virtualization is a key component to providing a fast, flexible, user-friendly digital workspace environment, while properly managing risk. When desktops or apps are virtualized, they run in secure data centers on premises or in the cloud. In both scenarios, only the rendering of the user interface is transmitted beyond the firewall.

There are two primary methods for abstracting apps from their endpoints: virtualizing the app itself with Microsoft Server Remote Desktop Session Host (RDSH), or virtualizing an entire desktop environment with VDI.

To rise to the challenge of today's sophisticated workforce, IT teams now are embracing desktop, application, and network virtualization as part of an integrated approach to security. Virtualizing network functions—such as switching, routing, firewall rules, load balancing, and VPN—provides security for east-west traffic inside the data center, and enables IT to quickly respond to data breaches, minimizing their risk and impact.

### Hyper-Converged Infrastructure Solutions

Hyper-converged infrastructure (HCI) solutions offer a modular approach to building a VDI environment, which greatly simplifies the planning, design, and rollout of virtual desktops and applications. These solutions should include compute, storage, network, hypervisor, and management resources all in a single appliance, which is tuned and pre-tested for specific workloads.



# ANZ Bank Takes Mobile Banking to New Levels with VMware AirWatch



ANZ Bank is committed to embracing mobile banking as part of its commitment to customer service, and turned to VMware to make it happen.

VMware helps ANZ Bank manage 18,000 devices across 34 countries using VMware AirWatch® and VMware App Volumes™ to streamline applications delivered to virtual desktops. ANZ has also used the AirWatch Software Development Kit™ to develop more than 20 mobile apps.

## BEFORE

## AFTER

Inability to fully participate in the digital banking revolution and take banking mobile.	Bankers can meet customers anywhere, from their businesses to the Internet.
Tools and apps not available on mobile devices.	Branches redesigned so bankers can use mobile devices within the building to communicate better with customers.



*“We’re in the business of delivering great customer experience. There’s two ways to do that. One through our people and the other through technology—but the intersection of those two is really where the gold is. That’s where the transformation is happening, and we’re seeing enormous benefits.”*

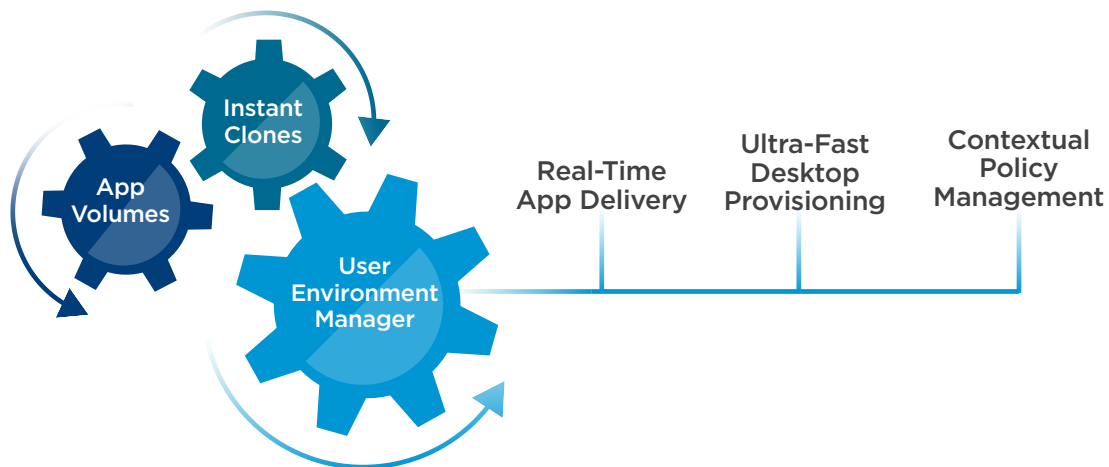
**CLAIRE ROGERS**  
HEAD OF DIGITAL BANKING, ANZ BANK

Read the full ANZ [case study](#) and watch the [video](#).

## VMware Workspace ONE

VMware Workspace ONE™ tightly integrated with VMware Horizon® offers greater simplicity, security, speed, and scale in delivering on-premises virtual desktops and applications. It enables the delivery of cloud-hosted or on-premises virtual desktops and apps to any device, anywhere, from a single cloud control plane.

Workspace ONE features the Just-in-Time Management Platform (JMP, pronounced jump), which transforms management and delivery of virtual desktops and applications. With JMP, IT organizations can focus on proactively defining outcomes based on business needs, instead of reactively maintaining and troubleshooting environments.



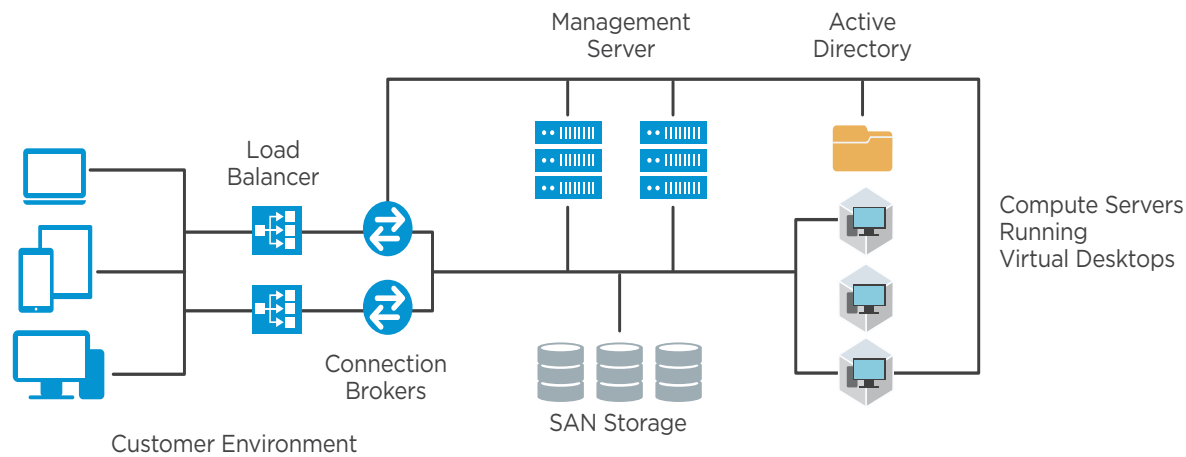
Just-in-Time Management Platform (JMP)

JMP uses VMware Instant Clone Technology, VMware App Volumes, and VMware User Environment Manager™ to untether the operating system, applications, and user personalization. By doing so, all the component pieces together can be automatically assembled on demand to deliver just-in-time desktops and apps to any device.

## Horizon Deployment Options

Workspace ONE with VMware Horizon can be deployed on premises, as a cloud-based solution with on-premises infrastructure, or as a cloud-based solution with hosted infrastructure.

### On-Premises Deployment (Horizon)



## DEPLOYMENT BENEFITS

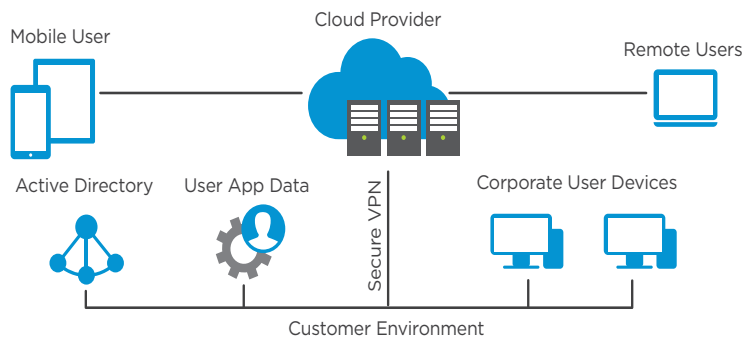
- CapEx model
- Greater flexibility in desktop options
- Scalable to customer requirements
- Feature-rich management



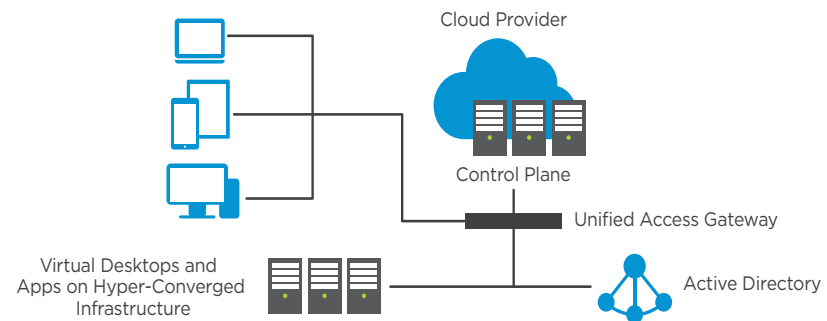
## Horizon Deployment Options: Cloud

VMware Horizon Cloud Service™ delivers feature-rich virtual desktops and applications using a purpose-built cloud platform that is scalable across multiple deployment options, including fully managed infrastructure from VMware, public cloud infrastructure from Microsoft Azure, or on-premises HCI.

### Horizon Cloud with Hosted Infrastructure



### Horizon Cloud with On-Premises Infrastructure



## DEPLOYMENT BENEFITS

- OpEx model of utility-based pricing
- Scalability on demand
- Minimal internal expertise required
- Remote locations where building data center capacity is impossible

## DEPLOYMENT BENEFITS

- Hybrid OpEx/CapEx model
- Management infrastructure in cloud
- On-premises virtual desktops and apps on hyper-converged infrastructure
- Minimal internal expertise required and easily scalable

# Delivering on the Promise of the Digital Workspace

Reaping the full benefits of the digital workspace requires a platform that collapses the traditional silos between mobile, desktop, and line-of-business application management.

VMware Workspace ONE is a digital workspace platform that simply and securely delivers and manages any app on any device by integrating access control, application management, and multi-platform endpoint management. It is available as a cloud service or for on-premises deployment.

Workspace ONE automates traditional onboarding and laptop and mobile device configuration, and provides real-time application lifecycle management that bridges the gap between legacy enterprise client-server apps and the mobile cloud era.

## With Workspace ONE, organizations can:

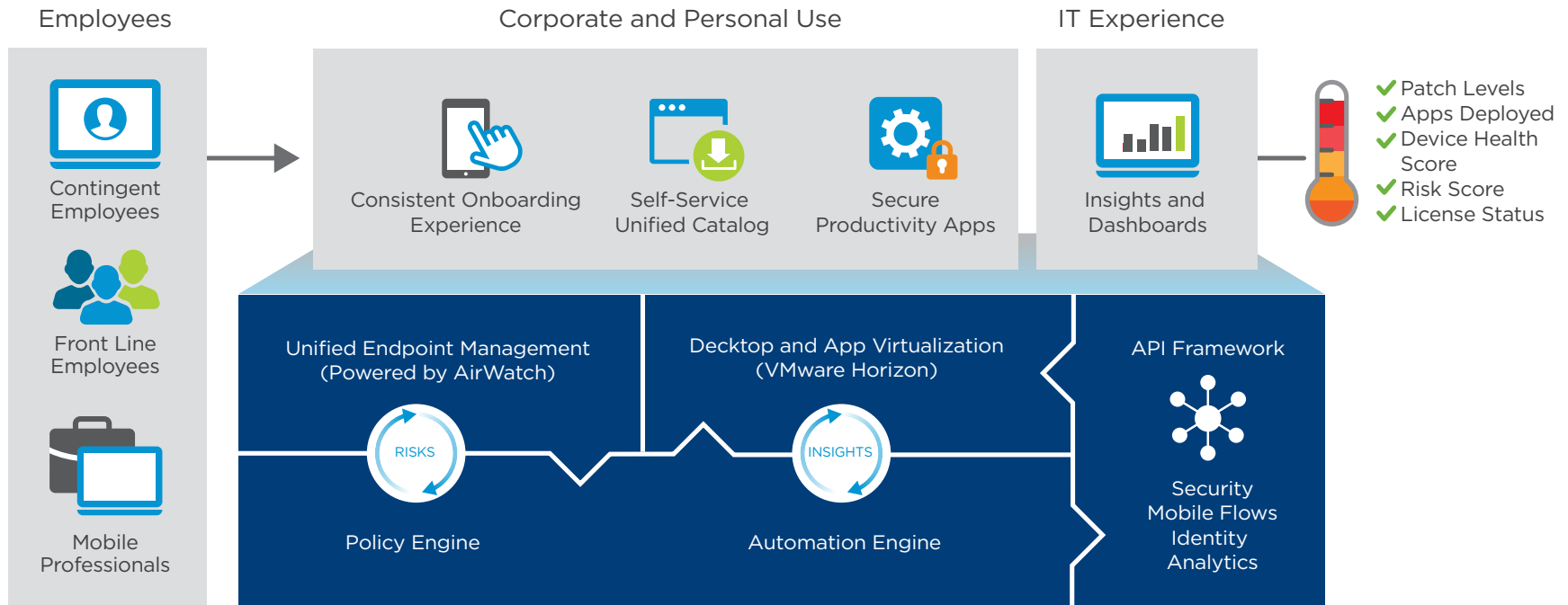
- Benefit from seamless integration across all end-user applications and services
- Provision a new corporate laptop out of the box, anywhere in the world, from the cloud within minutes
- Set and enforce access and data policies across all apps, devices, and locations in one place



## Workspace ONE: An Integrated Digital Workspace Platform

Workspace ONE uses VMware AirWatch Unified Endpoint Management™ technology, as well as VMware Horizon app and desktop virtualization to give employees the simple access and usability they crave and organizations the level of security they demand.

### Workspace ONE Platform Architecture



## Workspace ONE Platform Architecture



### ***Unified Endpoint Management (Powered by VMware AirWatch)***

Unified endpoint management uses cloud-based APIs built into modern device operating systems to (1) manage device lifecycle with full provisioning, patching, and software distribution or (2) gather context from trusted devices to simplify the employee experience while securing apps and data.



### ***Desktop and App Virtualization (VMware Horizon)***

Desktop and app virtualization permits Windows apps and complete desktops to be delivered seamlessly into the digital workspace environment from the cloud or any data center, so critical system-of-record applications remain protected, and mission-critical desktops are more simply managed.



### ***Policy and Automation Engine (Powered by the Workspace ONE Intelligence Service)***

Using the collected device context, rules, and risk-profiles defined by application owners, the policy and automation engine automates remediation and provides real-time visibility into usage patterns, health, and risk categories.

### ***Workspace ONE Benefits***

- A **quick, consistent solution** that provides new employees with the tools they need to do their job—within minutes, across any corporate-provided or personal device
- A **self-service catalog** containing cross-platform apps that employees can easily access to use or install
- **Secure productivity apps** so employees can complete tasks in real time without compromising data security or complicating business processes

# American Red Cross Portal Simplifies Access and Management for VDI, RDS, Legacy, and Cloud Apps



American Red Cross workers and volunteers are constantly on the go, and traditional computer systems couldn't adapt to the needs of a modern workforce. IT staff developed the American Red Cross Virtual Workplace, a digital workspace solution that delivers a consumer-simple experience with enterprise-class security.

Now volunteers and employees can use the devices of their choice to easily access apps and data from anywhere at any time.

## BEFORE

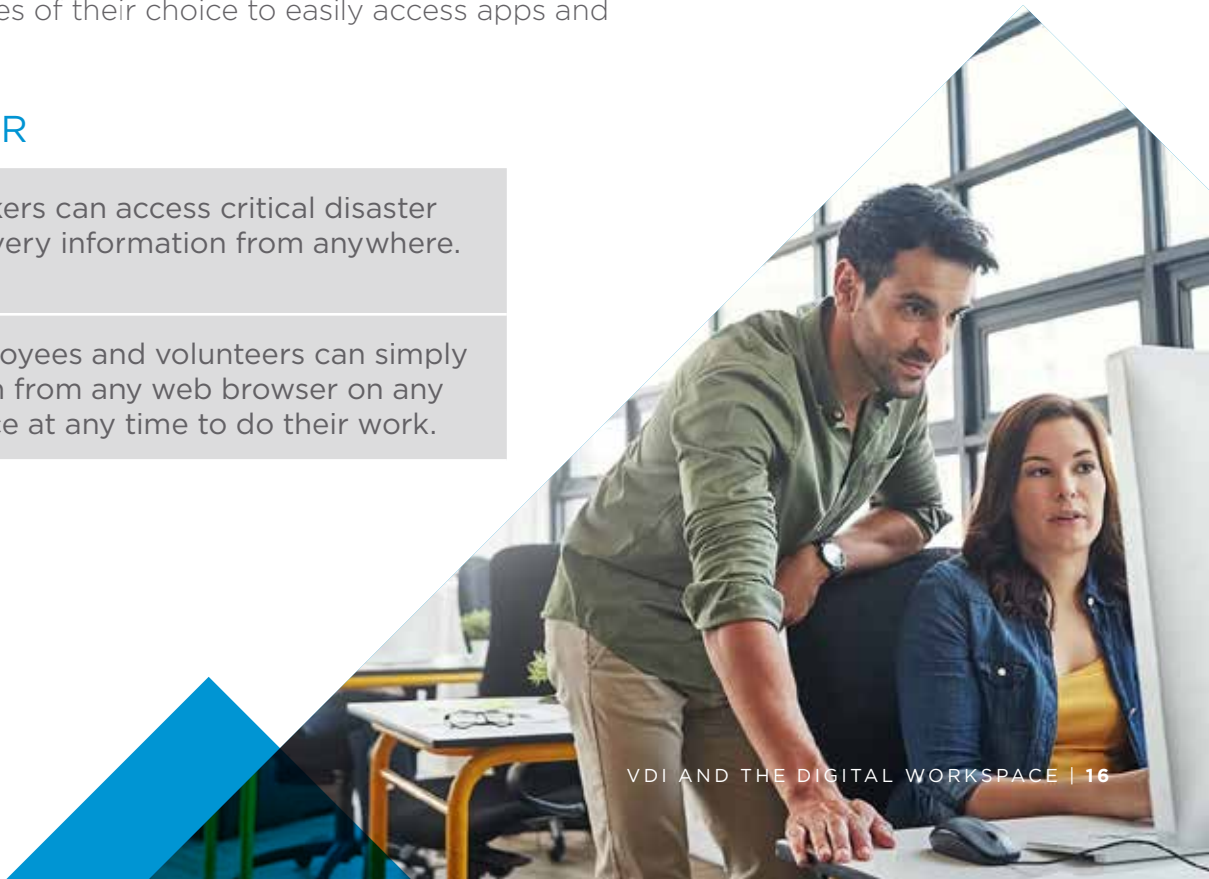
## AFTER

Employees and volunteers were tied to their desks, using out-of-date hardware and software.

Workers can access critical disaster recovery information from anywhere.

Needed to provide swift response to disasters anywhere and at any time.

Employees and volunteers can simply log in from any web browser on any device at any time to do their work.



*“Disasters don’t stop after 5:00. Now I can log in anywhere I have Internet access. The Virtual Workplace has really changed how we deploy technology.”*

**MICHAEL SPENCER**  
TECHNICAL LEAD, AMERICAN RED CROSS

Read the full [American Red Cross case study](#) and watch the [video](#) to learn more.

# Conclusion

In the age of mobile and cloud, the need to access any app from any device at any time is shaping how businesses drive digital transformation.

VMware supports employee engagement by delivering a digital workspace solution that is both simple to use and secure. The VMware solution makes it fast and easy for organizations to adopt new services and workflows while optimizing security with intelligent contextual access policies.

Virtual Systems supports IT through fully customizable VMWare Digital Workspace Solutions in an easy subscription model.

## GET STARTED TODAY

[Learn more about how VMware helps IT leaders on the journey to the digital workspace >](#)

[Test-drive a digital workspace in a Hands-On Lab >](#)

Join Us Online:



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