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 realized that the organization could benefit from the trends of IT consumerization and mobility. They developed the American Red Cross Virtual Workplace, a digital workspace solution that delivers a consumer-simple experience with enterprise-class security. Volunteers and employees now can use the devices of their choice to easily access apps and data from anywhere at any time. In this self-service model, anyone with Red Cross credentials has one-stop access to more than 150 applications. Designed to be available on any operating system, web browser or hardware, Virtual Workplace is helping Red Cross personnel spend less time managing technology and more time helping people.

Founded by Clara Barton in 1881, in Washington, D.C., the American Red Cross today is a nationwide network consisting of nearly 270 chapters and 36 blood service regions. It is the nation’s front line when it comes to disaster relief. The not-for-profit organization’s mission includes sheltering, feeding and providing emotional support to victims of disasters; supplying about 40 percent of the nation’s blood supply; teaching skills that save lives; providing international humanitarian aid; and supporting military members and their families.

The Challenge
“We are a mobile organization – but our technology wasn’t really mobile,” said Dave Bullamore, Vice President of End User Services at the Red Cross. Most workers and volunteers used standard organization-issued desktop or laptop machines that had to be constantly patched and updated, and not everyone was running the same version of commonly used software. For the move to mobility, the organization wanted to unify endpoint management for volunteers’ and employees’ Red Cross-issued devices, personal devices, and non-standard devices. “That would allow everyone to use the device that best suits their needs, whether it’s their personal device or something that was designed for their job,” said Adam Flowers, Lead Solutions Architect.
"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

The organization also wanted to modernize and simplify access to the applications it used day to day. When they began planning the digital workspace, IT staff saw that access to legacy, native, web and SaaS apps was inconsistent in user experience, security and support.

“What we determined was that end users really need simple, secure access to applications no matter where those apps reside,” said Flowers. After interviewing users and Red Cross departments to determine which apps were most used, they wanted to make sure that all apps—from older customized installed programs to SaaS and web-based applications—would offer reliable capabilities and user experiences, no matter the operating system or device type.

The Solution

The Red Cross built their “virtual workplace” with VMware Workspace ONE, a unified platform that combined VMware vSphere for virtualization in its data centers with VMware Horizon Enterprise, VMware App Volumes and VMware User Environment Manager to provide virtual apps and desktops. These services were delivered through the Workspace ONE platform to provide a unified catalog, authentication and single-sign on experience with conditional access controls.

Using this suite of VMware solutions, the organization developed a digital workspace solution where their end users could access any app — including virtual desktops, legacy apps and Remote Desktop Service (RDS) apps, and web and SaaS apps — from one place. Called Virtual Workplace, this portal, powered by VMware Workspace ONE, is where all Red Cross employees and volunteers can go to access the applications they need day to day.

“It doesn’t matter what operating system you have,” said Chris Moore, Lead Solutions Architect. “All you need is a browser to get to the latest versions of applications. It doesn’t matter what browser it is. We had a mantra that we’re going to make this available to any device, anywhere.”

To access Virtual Workplace, powered by Workspace ONE, authorized users simply use any browser to access the portal and enter their user name and password. Based on their role, they see the applications they have access to. Single sign-on (SSO) through VMware Identity Manager allows them to log on to any of their approved apps without entering credentials a second time. A “My Desktop” icon provides a full desktop experience through VDI. Applications range from standard desktop productivity software to specialized regulatory applications. Microsoft applications are integrated with Virtual Workplace, providing one-click access to legacy installed Microsoft apps and cloud-based Office 365, OneDrive and SharePoint. The portal also supports the latest cloud apps such as Concur and SalesForce.com.

“This was a greenfield project with no virtualization whatsoever. Once we decided on the solution components, we really hit the ground running,” said Flowers. After a “soft” rollout to about 50 users in October 2015, the IT group started to communicate the solution to the larger organization. Bullamore recalled that he “did dozens of demos, to anyone who would listen.” Interest grew rapidly. Now more than 10,000 unique users access the 150 available apps through Virtual Workplace each day. “We never mandated anyone to use this portal,” said Moore. “Our goal was, if you build it well, they will come. They’ll see the value. Now people really are seeing the value and they are always asking us to add more apps to Virtual Workplace.”
In the data center, the Red Cross uses VMware vSphere, which provides a powerful, flexible, and secure foundation for a next-gen infrastructure and apps. In addition, they used a suite of VMware end user solutions to deliver virtual apps and virtual desktops, manage policies and personalization and deliver applications. VMware Horizon Enterprise delivers desktops and applications through a single platform, transforming static desktops into secure, digital workspaces that can be delivered on demand.

VMware App Volumes packages, updates and delivers applications to Horizon virtual desktops and RDS app servers, helping reduce image management costs. Because App Volumes decouples the operating system image from the application image, updates and patches are delivered easily without interrupting the end users’ workflow. VMware Identity Manager provides SSO access to apps, and serves as a gateway to RDS apps. For legacy apps, Identity Manager passes the authentication request to third-party software. VMware User Environment Manager personalizes users’ environments, capturing individual settings from 150 applications. The organization also uses UniPrint for printing from Horizon virtual desktops.

The Red Cross IT team called out several improvements they noticed when they upgraded from Horizon 6.1 to Horizon 7. VMware Instant Clones instantly provisions non-persistent virtual desktops, improving on View Composer’s times. VMware Blast Extreme supports a broad range of display protocols for virtual and RDS desktops. Horizon Smart Policies provide granular control of remote desktops using User Environment Manager, managing features dynamically based on user identity and other Horizon features such as IP address or pool name.

Business Results & Benefits

Daily use of computing devices and applications at the Red Cross is now streamlined, fully functional and easy for everyone to use. Technical Lead Michael Spencer shared his earlier experiences of workplace computing: “We used to delight our internal customers by fixing their computer problem, whatever that was. Now I don’t have to worry about their computer problem. I can give them basically a new computer just by giving them access to the Virtual Workplace.” With Workspace ONE, new employees can be onboarded with all apps and devices in under an hour with zero help desk calls or tickets. Flowers added that “A new employee today can get straight to work on improving the organization, instead of needing a week or two to get into the groove and find out where everything is.”

Applications, whether installed, legacy, RDS or web-based, are now easier to manage and faster to access. “The Virtual Workplace has allowed us to keep older line of business applications, even if they require legacy components of web browsers or Java,” said Bullamore. “We can now move forward with modern web browsers, devices running newer operating systems like Windows 10, and Macs, while still supporting legacy software.” Bullamore added that performance improvements are noticeable. “A lot of people will use the virtual workplace because the applications on their desktop as a whole perform better. They’ve done time savings calculations to show that it makes such a difference to them and their organization.”
AMERICAN RED CROSS PORTAL SIMPLIFIES ACCESS AND MANAGEMENT FOR VDI, RDS, LEGACY AND CLOUD APPS

The move to mobile devices and Virtual Workplace has improved services in the field, where disaster relief and blood donations are two of the Red Cross’ primary purposes. Volunteers and employees no longer have to deal with incompatible systems. They can log on to Virtual Workplace and quickly do their work.

When disasters happened in rural areas where bandwidth can be limited, it was difficult for Red Cross employees and volunteers to submit reports and request supplies online. Moore estimated that 90 percent of field applications were web-based. With the Virtual Workplace, “those applications run through the data center. Bandwidth is guaranteed. Field workers get the same experience but it takes a fraction of the time.”

Looking Ahead
The Red Cross will continue to grow the Virtual Workplace and make more apps available through Workspace ONE. They also continue to refresh devices and provide more mobile devices for people working in the field on projects such as blood drives and disaster relief.

At the same time, the organization is getting ready to deploy VMware AirWatch mobile device management solutions. Identity is the new perimeter, now that more and more users connect from outside the network domain from devices that may or may not be organization-owned. Workspace ONE combines AirWatch and a deep tie-in with Identity Manager. The Red Cross hopes that AirWatch will become an integral part of their IT solutions as it is rolled out.

Flowers also noted that the mobility aspect of Windows 10 should help the organization as they move toward more mobile devices in the field. Windows 10 offers a fundamentally different approach to managing operating systems services from the cloud, and dramatically simplifies device enrollment and provisioning on any network (domain-joined or internet) regardless of device ownership. Windows 10 includes mobile management APIs that integrate with Workspace ONE. “Providing access to newer technologies is always a big deal for our end users,” said Flowers, “so where we can, we always want to provide a high-performing and secure solution.”

“What I love about the Red Cross is the mission to alleviate and prevent human suffering,” said Bullamore. “That’s hugely rewarding, it drives us and keeps us grounded. But it’s our job in IT to help the people who are delivering on the mission without overwhelming them. We have to remember that they’re not here to work with technology – they’re helping and providing services to people who are really having the worst time of their life.”