

# STREAMLINING THE DELIVERY, PROTECTION AND MANAGEMENT OF VIRTUAL DESKTOPS

VMware Workstation and Fusion

A White Paper for IT Professionals

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## DATA CENTER DESIGN & TEST

Without virtualization, data center design and test can be very time consuming. IT teams need to spin up costly new physical systems and perform numerous management tasks in different systems and integrate with other tools to fully test enterprise systems.

Workstation and Fusion address these challenges directly by allowing IT professionals to:

- Test VMs with everything running on a single machine.
- Create a bridge between the virtualization stack and the data center stack.
- Provide snapshot (rollback) and cloning (full copy of an OS that can be recreated immediately) to save valuable time and rework.
- Leverage full and linked clones:
  - Full – a complete 100%, independent copy for sharing, distributing, or archiving a VM.
  - Linked – a VM that is a fraction of the original size with tremendous speed but without the extra space; able to run multiple OS's at the same time off the same disk.

## Overview

Anytime, anywhere access to work is a basic need for the modern workforce. Whether remote, in the field or in the office, workers are no longer physically connected to your network or data center. The new digital workspace features virtualized laptops, desktop and workstations; a variety of personal systems and smart devices that may be part of BYOD programs, and a diverse app ecosystem with desktop, remote, mobile, SaaS and Universal apps.

These shifts have created tremendous complexity for IT professionals responsible for deploying, managing and protecting user systems in the enterprise.

VMware Workstation™ and VMware Fusion® provide IT professionals with a better, more efficient way to deliver, test and manage Windows, Linux or Mac desktops and applications on-premises or in the cloud. This white paper discusses how these capabilities can help you adjust to the changing needs of the business while streamlining time and cost requirements and ensuring end users can work anytime, anywhere, across any Intel x86-based device.

## The Changing Enterprise User Landscape

Today, there are over 1.3 billion mobile workers worldwide\*, leveraging more devices and operating systems than ever before. Gone are the days of client/server computing where Windows ruled the day and end users were expected to do their work from one system and one location. Today's end users are working from a variety of operating systems and devices, and they expect and require secure access to their applications and content from anywhere they need or want to work.

These shifts, coupled with increasing demands from the business for speed and responsiveness, have created a variety of new challenges for IT professionals responsible for deploying and managing client computing and local virtualization initiatives:

- More (and more complex) applications than ever before
- Managing environments both on-premises and in the cloud
- Users accessing Windows applications alongside non-Windows applications
- Managing and delivering local virtualization services with time-consuming and costly PC-centric tools

You're also likely juggling concerns about physical requirements, managing various and disparate tools and machines and working to design, test and manage all this without disrupting end users' productivity.

## DATA CENTER MANAGEMENT

Virtualization, coupled with the plethora of new systems and applications in the data center, creates a variety of new management complexities.

With VMware's industry-leading management tools and capabilities, Workstation and Fusion enable IT to tackle this issue head on. For example, IT users can:

- View and manage both physical and virtual resources from a single control pane.
- Easily access all the different tools needed to manage various components or apps, all in one place.
- Transfer a virtual machine from the Workstation or Fusion desktop directly to the vSphere cluster without worries about compatibility.

## Introducing VMware Workstation and Fusion

Workstation and Fusion products are the #1 choice of IT Pros around the world for local virtualization. They enable you to test and deploy the latest operating systems on nearly any computer, giving you the power to stay on the cutting edge without compromising the stability of your main machine and without spinning up costly rack-mounted hardware or disrupting workflows with design and test activities. IT Pros can quickly perform management tasks on VMware vSphere® without leaving Workstation and Fusion, and integrate with industry-leading networking tools to more fully design and test enterprise network topologies. Whether for data center design and test, data center management or network design and test, IT Pros in businesses of all shapes and sizes – from government and education to financial services, healthcare, retail and manufacturing – depend on VMware's virtualization solutions to improve their organization's **agility**, boost **productivity** and enhance system **security**.

## Improving Organizational Agility

Things change rapidly in the business world – new opportunities open up, others close. You need to be able to add and subtract applications, systems and users quickly and efficiently while maintaining complete control.

With Workstation and Fusion, hardware resources are 'abstracted' from the physical system, making that complete operating system portable, hardware agnostic, scalable and secure. This enables IT to support optimal technical and business agility while retaining complete functionality and management of nearly any x86-based operating system.

Workstation and Fusion help IT increase organizational agility in multiple way:

### **The broadest support of host and guest operating systems**

With Workstation and Fusion, IT can run or test applications on virtually any operating system, from MS-DOS to Linux distributions, OS X on Mac computers, Windows XP running legacy applications, or even mobile OS's like Android-X86, without rebooting.

### **Integrated vSphere ecosystem support**

Easily create and test virtual machine images and templates that are compatible across the VMware ecosystem, enabling you to run the same workloads on your laptop that run in the enterprise data center.

### **Easy sharing and hosting of VMs**

IT can create master templates that are easily transferrable to vSphere, or share virtual machines across the local network between Workstation installations.

### **Advanced networking control**

Using the built-in network editor, IT can create custom network topologies to connect multiple virtual machines on a variety of network types with full NAT and DHCP control.

With so many different physical systems to manage, Workstation and Fusion give IT the control and flexibility needed to stay ahead of today's technology curve while responding to the fast changing needs of the business.

## NETWORK DESIGN & TEST

### NETWORK DESIGN

Network engineers designing data center layouts must take into account numerous components. They need to architect it from the start for scalability and flexibility.

Workstation and Fusion easily incorporate software tools like GNS3 that enable you to design and build data center networks in programs like Visio. GNS3 plugs into Workstation and shows you the entire network topology. You can adjust via simple drag and drop and Workstation deploys it. No complex design is needed. You don't need to buy expensive, duplicate routers.

### APPLICATION TESTING

In modern application, there are multiple tiers - web, load balancer, Apache, etc. Applications are always "working" across these tiers; e.g., talking to the database, sending information to the servers, etc. All these tiers need to be designed and connected in a certain way to work properly.

Workstation and Fusion put that complexity in the background without forcing you to give up any functionality. You can make sure your network design works before you invest in cloud services or roll your application out to production.

## Boosting Business and IT Productivity:

As the role of IT becomes more essential to the success of the business, the expectations of IT professionals grow. You are simply expected to do a lot more with a lot less these days. There is no avoiding it.

Workstation and Fusion increase both business and IT productivity by providing easy access to computing tools and resources that normally require multiple physical systems. New business opportunities can be realized by easily transferring secure virtual machines to new hardware without reconfiguration or rebuilding, allowing fast on-boarding with minimal downtime and without the prohibitive costs.

IT can also easily provide corporate desktop environments that are tailor-made for different employees' needs.

There are two specific capabilities that enable IT to get users up and running faster while making themselves more productive at the same time:

### vSphere client controls

For vSphere admins, Workstation and Fusion are the perfect companion to the corporate data center. You can take care of common virtual machine tasks, and control remote servers and desktops by connecting to vSphere hosts or vCenter servers, without having to launch the full vSphere client.

### Easy VM duplication and sharing

With Workstation and Fusion, IT can save significant time and effort when creating the same user setup over and over. Using 'Linked Clones', IT can quickly duplicate a virtual machine while significantly reducing physical disk space. You can also use 'Full Clones' to create fully isolated duplicates that can be shared with others.

## Enhancing System Security

Cyber security ranks as one of the most important topics in any CIO survey in the last 12 months.

Workstation and Fusion are built on over 15 years of virtualization excellence. Thanks to powerful security features, these products provide the most stable and secure local desktop virtualization platform in the industry. As a result, millions of IT professionals and organizations around the world in multiple industries rely on VMware's solutions today. Some of the key reasons they feel secure include:

### Robust policy restrictions

Administrators can enforce policies that restrict the functions of a virtual machine that are not necessary or pose a security risk to the user or the organization, such as disabling file sharing to completely isolate the virtual machine on a BYOD device. Essentially, you are able to control exactly what VMs can and cannot do.

### Comprehensive OS security testing

IT can comprehensively test operating system and application security from a variety of angles while isolated from the physical computers.

### World-class support and a global community

VMware offers world-class 24x7 support in a variety of packages to suite every IT pros' needs: ranging from free to full SLA-backed phone support, coupled with an extensive and active worldwide community ready to help.

### Learn More

With over 15 years of virtualization excellence, millions of satisfied customers, and a collaborative global community, Workstation and Fusion are the #1 choice for IT Pros.

Whether they are working on data center design and test, data center management or network design and test, IT professionals in businesses of all shapes and sizes depend on these solutions to improve their organization's **agility**, boost **productivity** and enhance system **security**.

See what Workstation and Fusion can do for your IT team.

Mac users can try Fusion Pro for free at [www.vmware.com/products/fusion-pro](http://www.vmware.com/products/fusion-pro)  
And Windows and Linux users can try Workstation Pro for free at [www.vmware.com/products/workstation](http://www.vmware.com/products/workstation).

\*<http://fliplet.com/blog/enterprise-mobility-statistics-infographic/>



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