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CISCO

Give Your Users Secure Access to Their Apps Anywhere, Anytime

With Cisco HyperFlex and Cisco UCS Platforms and VMware Horizon 7

Digital transformation is here

People who have grown up with technology have very specific expectations for it. It needs to be flexible, fast, convenient, and productive. Today's employees want to be able to work collaboratively from anywhere and on any device they choose. With these expectations in mind companies are focusing on the end-user experience with products and services that better meet the users' needs. Technologies such as cloud computing, mobile devices, and virtual desktop infrastructure (VDI) are rapidly evolving to accommodate the ways that people want to work and live. They're having a profound impact on business strategy.

At the same time, you may be planning updates to your desktop computing environment with the latest release of Microsoft Windows 10. This release imposes much greater requirements for the base platform for example more graphics-based applications. To meet these requirements, you will need to replace many, or all of your staff's computers. If you have been through a complete hardware refresh for your staff, you know how time consuming and difficult this process can be. We Cisco and VMware can help you tailor solutions to meet your staff needs and ease your migration to Microsoft Windows 10.

Highlights

- Transform
  Digital business transformation is changing the way we work.

- Upgrade
  Microsoft Windows 10 migration is in your future.

- Modernize
  Cisco and VMware can tailor a virtual desktop solution for you.

- Increase value and reduce risk
  Accelerate time-to-value.

Cisco in collaboration with VMware **vmware**®

 Cloud-like simplicity

 Mobile device management with VMware AirWatch

 Secure identity management

 Virtual desktop and application management

 Enable your workforce

Empower your digital workforce

Much has changed since the first VDI products were introduced about 10 years ago. And as the market has changed, so have our solutions, both for the end user and for those managing the solutions. We have worked together for years so that our desktop virtualization solutions have always led the way in performance, cost effectiveness, and user experience. We can help you tailor a solution that will help you empower your digital workforce. We support holistic services that deliver consumer-quality simplicity and flexibility so that your employees can be productive with any device, anywhere, and at any time. Our solutions enable you to use a single, unified system—VMware Horizon 7 on a Cisco Unified Computing System™ (Cisco UCS®) or Cisco HyperFlex™ platform—to manage all your applications and devices. This solution will greatly simplify your entire management lifecycle: for applications, access points, endpoints, and data center infrastructure.

VMware Horizon 7

VMware Horizon 7 provides you with a simplified approach to delivering, protecting, and managing desktops and applications. It helps you contain costs and ensure that your end users can work anytime, anywhere, on any device. It allows you to centrally manage images to simplify management and maintain

compliance. With Horizon 7, both virtualized and hosted desktops and applications can be delivered through a single platform to end users. This capability will help facilitate your migration to Microsoft Windows 10 and transform your delivery of end-user applications and desktops.

Is your workforce mobile?

"We are a mobile organization – but our technology wasn't really mobile... It's our job in IT to help the people who are delivering on the mission without overwhelming them."

Dave Bullamore
Vice president of end-user services at the Red Cross.

The right infrastructure for the job: Solutions based on Cisco UCS and Cisco HyperFlex systems

Cisco UCS is the right platform to support your digital workforce and provide your workforce with a great user experience. Cisco UCS is a single system that unifies computing, networking, storage access, management, and virtualization into one integrated platform designed to eliminate fundamental complexity and increase business agility. Cisco UCS is the foundation for Cisco® hyperconverged architecture and Cisco HyperFlex systems and for converged

architecture with NetApp (FlexPod), IBM (VersaStack) and Pure Storage (FlashStack) solutions. It gives the flexibility to meet your specific infrastructure needs within your existing data center model. With Cisco HyperFlex systems, you benefit from the simplicity of hyperconvergence while taking advantage of Cisco's unique capabilities to scale computing resources independently from storage capacity, giving your virtual desktop environment exactly

the resources it needs. Cisco UCS Integrated Infrastructure solutions come as ready-to-deploy stacks and enable you to use the storage devices you have or have chosen through your primary storage vendor. You can use a single point of system management for all Cisco UCS and Cisco HyperFlex solutions with Cisco UCS Director or through integration with VMware vCenter® software (Figure 1).

Single unified system | single management model

Cisco UCS C-Series Rack Servers and B-Series Blade Servers and Cisco UCS Mini

Cisco converged infrastructure solutions

Cisco HyperFlex systems

Traditional desktop virtualization environments

Preconfigured desktop virtualization environments

Adaptive infrastructure for desktop virtualization environments

Traditional · Converged · Hyperconverged

Cisco HyperFlex Systems
- Hyperconverged simplicity
  Easy to deploy and manage
- Balance
  Only vendor to offer computing-only nodes
- Increased performance
  All-flash nodes available
  GPU support
  Excellent user experience
- Security
  Encrypted data at rest

Figure 1 Deploy a single unified system with a single management model

The right solution for the job

Microsoft Windows 10 is much more graphics-intensive than previous versions. In the past, most task and knowledge workers didn't need any hardware support for graphics, but that is no longer the case. The combination of VMware Horizon, Cisco HyperFlex systems and Cisco UCS blade and rack servers gives you the option to enhance your user experience with graphics acceleration using a graphics processing units (GPUs). You can dedicate a GPU to a particular person or application, such as a media or graphics application, using virtual dedicated acceleration (vDGA). Alternatively, you can share a graphics processor among many users, using virtual dedicated graphics acceleration (vSGA). You choose what works best in your environment (Figure 2).

Cisco UCS and Cisco HyperFlex systems with VMware Horizon 7 offer graphics acceleration for common applications
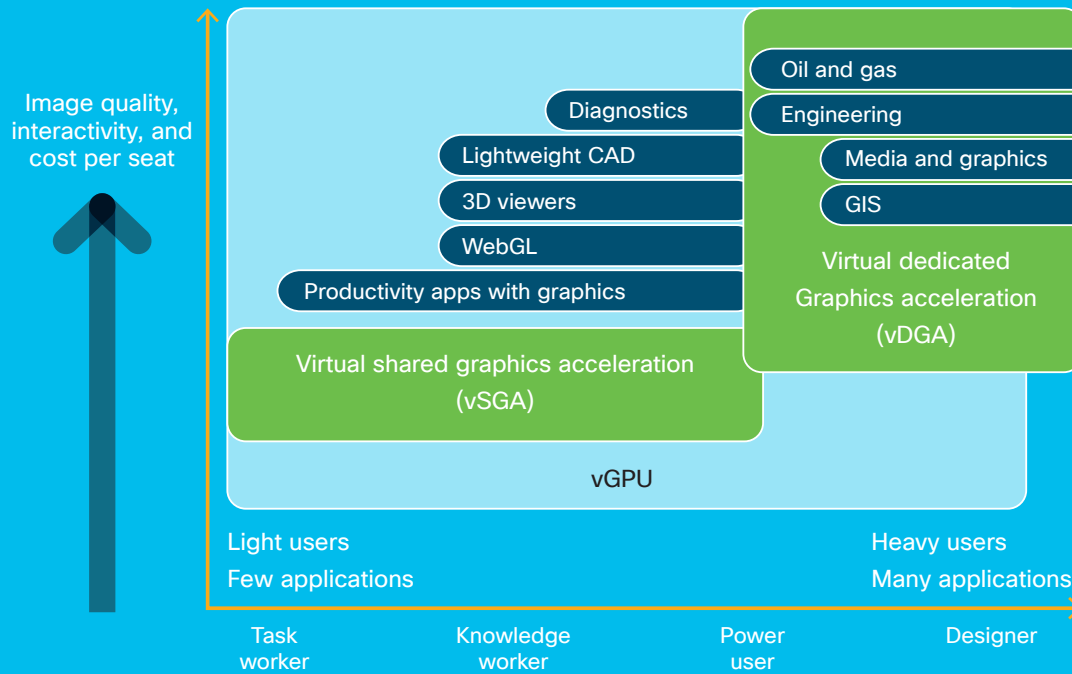
Image quality, interactivity, and cost per seat

Diagnostics
Lightweight CAD
3D viewers
WebGL
Productivity apps with graphics

Oil and gas
Engineering
Media and graphics
GIS

Virtual dedicated Graphics acceleration (vDGA)

Virtual shared graphics acceleration (vSGA)

vGPU

Light users
Few applications

Heavy users
Many applications

Task worker
Knowledge worker
Power user
Designer

Cisco UCS Integrated Infrastructure

· Choice

Enterprise storage

Blade and rack servers

· Unified

Networking

Management

Virtualization support

· High performance

Over 100 performance world records

GPU support

Excellent user experience

Figure 2 You can use dedicated or shared graphic acceleration

Increase value and reduce risk

Through our Cisco Validated Design program, we comprehensively test and document our solutions so that you can accelerate the time to value for your solution while reducing risk. We can help you deploy solutions for anywhere from a few hundred to tens of thousands of users. And because our solutions scale so easily, you can deploy them in block increments to meet your needs today.

Cisco Validated Designs provide a foundation for solution design based on common use cases, current engineering system priorities, and industry best practices. They incorporate a broad set of technologies, features, and applications to address your needs. We can help you find the right desktop virtualization solution already pretested and preintegrated at www.cisco.com/go/vdi-cvd.

The current industry trend in data center design is shared infrastructure to increase efficiency and value. By using virtualization along with prevalidated IT platforms, you can simplify your migration to Microsoft Windows 10 and your journey to the cloud. You can finally move away from application silos and toward shared infrastructure that can be quickly deployed to increase agility and reduce costs. We have worked with VMware to deliver many Cisco Validated Designs. These designs serve as the foundation for desktop virtualization workloads using an efficient architecture that you can quickly and confidently deploy.

"Virtual desktops give me the ability to work on multiple projects at once. When I work on the modeling for a project, I have to wait for it to render. On a large project, this sometimes would tie me up for days. Now, I am able to push the rendering into the background and work on other projects. I am more productive and it makes work less stressful."

Debbie Peterson
Project design specialist at Mayfran

Digital transformation

Modern workforce

Applications anywhere

Mobile workflows

Emerging delivery models

Enable your digital transformation

A digital transformation is underway. Whether you're in healthcare, education, engineering, manufacturing, or some other industry, you need to attract talent by enabling a modern workplace. This means not tethering people to a desk. To achieve your goals, you will need to support mobility and security and workflows that automate the entire process.

At the same time, you may be migrating to Microsoft Windows 10, which has greater graphics requirements than previous versions and so can lead to a poor user experience if you are using an older desktop virtualization solution or older hardware. Will you take the traditional route and refresh all your desktop hardware? Or will you move into the modern age of virtualization with Cisco and VMware? This is a good time to look at Cisco solutions for VMware Horizon 7 for the first time or to update your existing VDI 1.0 deployment.

Next steps

Cisco and VMware are delivering solutions to help you with your digital transformation from your data center to the network edge. Contact your Cisco salesperson or reseller to find out more about these enabling solutions. You can use our online tool to find Cisco resellers close to you

For more information

- For more information about Cisco HyperFlex systems, visit http://www.cisco.com/go/hyperflex.
- For more information about Cisco UCS, visit http://www.cisco.com/go/ucs.
- For information about Cisco UCS and VMware Horizon, visit http://www.cisco.com/go/vdivmware.
- For more information about VMware Horizon 7, visit https://www.vmware.com/products/horizon.html.