

# A GUIDE TO IMPLEMENTING VDI AS A SERVICE



**CREATIVE**  
CONSULTING

[CREATIVE-ITC.COM](http://CREATIVE-ITC.COM)

# OVERVIEW

After years of promise, Virtual Desktop Infrastructure (VDI) is finally hitting the mainstream as a desktop management solution suitable for almost all mid-large organisations seeking to simplify their desktop management cost-effectively. VDI provides users with access to a remotely hosted virtualised desktop. Run on a centralised server, the virtual desktop infrastructure is accessible by all approved users, from any device.

## How to implement VDI

The challenge for many organisations is how to integrate VDI into their company environments. Going down the in-house route using a managed offering might limit your flexibility to deliver the solution that meets your needs, as managed solutions are often built on standard, non-customisable hardware.

At Creative Consulting we look at things differently, and our VDI managed platform is completely built to our customers' requirements. This could mean you need K2 Graphics cards for CAD users with high IOPS data, or you're looking for a low-end solution just for your admin staff. The solution we design is always custom built exactly for you and managed by us. This gives our clients the solution they need based on a simple monthly 'per-user' model.

## Benefits for managers

- Simplifies desktop management
- Easy to add and remove users
- Cost effective – generates clear ROI
- Secure
- Enables flexible working

## How to decide whether VDI will benefit you

The traditional workplace has changed beyond recognition, with more employees working remotely – a growing trend. In order to make the most of your workspaces without compromising on security, solutions like VDI can enable your staff to hot-desk and even access their desktops from home or on the move.

Upgrading desktop computers is expensive and time-consuming, especially for larger outfits. VDI makes this easier to manage, enabling central management of all personalised desktops and greater control over what's being installed. Due to this central management, VDI is also secure, as it stores sensitive data on the server in the data centre rather than on the device. An additional benefit is that many users choose to access their virtual desktops from thin clients like laptops and tablets – which have a far lower carbon footprint than desktops, and will save on energy costs.

## Nine signs you'll benefit from VDI

1. Desktop flexibility is a priority for your staff and management
2. You're looking for fast deployment
3. You want to manage all your desktops from a single server
4. You want to reduce the resource needed to manage desktops
5. Long term cost savings are more important than short term
6. You want faster update speeds
7. You need secure storage for your sensitive data
8. You want a greener solution for your desktop management
9. You'd like easier OS migrations

**In summary**, VDI enables you to streamline desktop management and running costs by centralising the desktops. End users benefit from the resulting mobility and freedom to access virtual desktops anywhere with Internet connection, at any time of day, on any device. So the benefits are obvious for your staff, but you'll benefit too – making desktop access more flexible can save time and costs – all while maintaining strong secure connectivity, with total control over access rights. Depending on your existing environment, in-house skills or IT strategy we can work across the following three key platforms – Microsoft, Citrix and VMware.

# VMWARE VIRTUAL DESKTOP INFRASTRUCTURE

We can deliver virtual or hosted desktops and applications through a single VDI platform with VMware Horizon 6. This provides end users access to all of their virtual desktops, applications and online services through a single workspace in a few simple clicks. Horizon 6 extends the power of virtualisation with virtual compute, virtual storage, and virtual networking and security to drive down costs, enhance the user experience, and deliver greater business agility.

## Key benefits

- ◉ Delivers desktops and applications through a single platform
- ◉ Supports a rich, adaptive user experience
- ◉ Secures data and simplifies compliance
- ◉ Dramatically improves ROI
- ◉ Real-time application delivery and management
- ◉ Optimised for the software-defined data centre
- ◉ Certified with Autodesk applications including Revit

## FEATURES AND BENEFITS OF VMWARE HORIZON 6

### App Volumes Managed VM

Unique Volumes, Writable, Changes Preserved

Conf. Licenses

Date/Files

Middleware

Apps

Shared Volumes, Read Only Single Copy

Settings

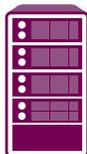


Av Agent

Hypervisor



Network



Server



Storage

### ✔ Delivers desktops and applications through a single platform

Transform static desktops into secure, virtual workspaces that can be delivered on demand. Provision virtual or remote desktops and applications through a single VDI platform to streamline management and easily entitle end users.

### ✔ Supports a rich, adaptive user experience

A great end-user experience for knowledge workers, mobile workers, 3D developers across devices, locations, and media

### ✔ Secures data and simplifies compliance

Consolidate control, delivery and protection of user compute resources with end-to-end management and automation. Simply and dynamically set security policies across groups of end users.

### ✔ Improves ROI

Allocate resources with virtual storage, computer and networking to simplify management and drive down costs. Reduce day-to-day operations costs with a single platform that allows you to extend virtualisation from the data centre to your devices.

### ✔ Policy and image management

Support desktop and application provisioning and entitlement through View.

### ✔ Analytics and automation

Cloud analytics with VMware vRealize™ Operations for Desktops and Applications provides comprehensive visibility across a VMware and Citrix desktop and application environment, optimal performance of desktop and application services.

### ✔ Orchestration and self-service

Center provides a centralised platform to manage your desktop workloads. A plug-in to VMware vRealize™ Orchestrator™ provides IT organisations with automated desktop and application provisioning.

# MICROSOFT VIRTUAL DESKTOP INFRASTRUCTURE

Microsoft VDI enables your IT team to deliver desktops and applications to users on a variety of devices. Centralising and controlling applications and data through a virtual desktop enables people to get their work done on the devices they choose while helping IT maintain compliance.

With rich user experience and efficient management highly valued, Microsoft VDI gives organisations with limited resources a solution to embrace the bring-your-own-device (BYOD) trend without compromise.

## Key benefits

- Efficient management with the deployment wizard consolidated within Server Manager
- Rich Windows experience available on a variety of devices and platforms
- Great value with capabilities such as storage-tiering and online data deduplication to improve performance, scale, and solution economics
- Enhanced user experience
- Simplified, unified administration
- Quick deployment

## FEATURES AND BENEFITS OF MICROSOFT VDI

### ✔ One platform, one experience, three deployment choices

Microsoft offers IT pros flexibility in choosing the right mix of technologies to deliver a VDI solution so they can customize the implementation to meet their organisation's needs. IT pros can deploy the appropriate type of VDI solution for their users, all from a single platform.

### ✔ Microsoft VDI in Windows Server 2012 R2

Windows Server 2012 delivered significant enhancements to simplifying the deployment and management of a VDI environment as well as improving users' experience. Windows Server 2012 R2 and the Microsoft Remote Desktop app continue to improve the user experience and management capabilities with key new features, including:

- **Storage tiering and online data deduplication**
- **Enhanced user experience**-RemoteFX provides a consistent and rich user experience across all hosted desktops and devices.
- **Simplified administration**-With Microsoft VDI, you can manage your VDI architecture with a single integrated console. You can automate deployment and configuration of server roles, manage pooled and personal virtual machines, and use session shadowing to view and remotely control active user sessions.

### ✔ Microsoft VDI can host

Personal and pooled virtual machine desktops, session-based desktops and RemoteApp programs.

### ✔ Efficient management

Unified administration provides a single integrated console for roles, servers, collections, users, and VMs. Simplifies management of pooled and personal VMs. It's quick to deploy – with a few clicks you can set up a basic VM, a session-based VDI, a single server pilot, or a high-availability enterprise deployment.

### ✔ Rich user experience

Microsoft VDI delivers a rich user experience, providing RemoteFX for WAN, Microsoft Remote Desktop App, GPU support, multi-touch remote, RemoteApp programs and user profile disk.

### ✔ Great value with key storage enhancements

The following features enhance storage capabilities and provide great value:

- **Online data deduplication**
- **Storage tiering**
- **Multiple storage options**
- **Fair Share**
- **Powerful Hyper-V platform**
- **High availability**

# CITRIX VDI-IN-A-BOX

Citrix VDI-in-a-Box is an all-in-one VDI solution that delivers personalised virtual desktops for less than the cost of new PCs. Available as a virtual appliance, VDI-in-a-Box runs on industry standard servers and eliminates the need for expensive data centre infrastructure.

## Key benefits

- Reduces costs
- Personalises virtual desktops
- Scales on-demand
- Achieves built-in high availability
- Simplifies management
- Delivers a high-definition user on-demand experience

## FEATURES AND BENEFITS OF CITRIX VDI-IN-A-BOX

### ✔ Deploy personalised virtual desktops for every user

Users can install their own applications, set up individual profiles and store their data. IT administrators can update and manage these personalized desktops just like pooled desktops by updating and managing the single master image from which they were generated.

### ✔ Start small and scale on-demand

A deploy-as-you-grow model gives organisations the flexibility to start small and add more off-the-shelf servers as needed. The hot-pluggable VDI-in-a-Box grid can be reconfigured on demand without having to turn off a production grid.

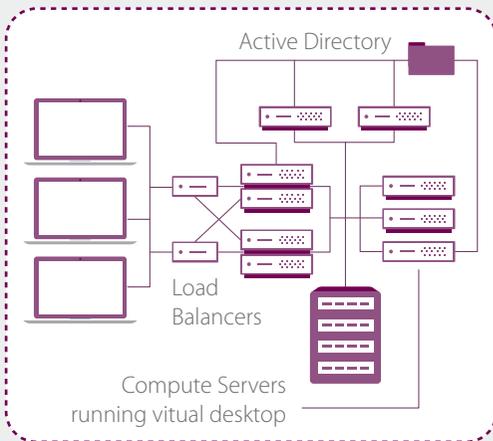
### ✔ Choose from industry-leading hypervisors

An open architecture allows many options for platform and protocol. VDI-in-a-Box is available on Citrix XenServer, Microsoft® Hyper-V® and VMware vSphere™ hypervisors. It is also protocol agnostic, supporting both HDX and Microsoft® RDP technologies.

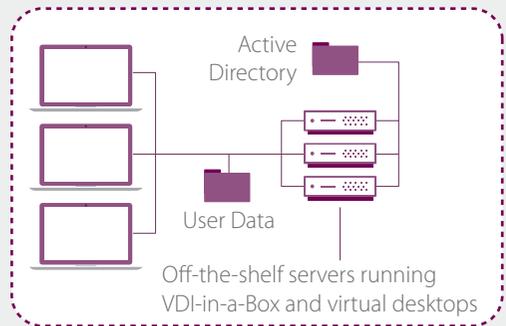
### ✔ Provide a high-definition user experience

Built-in HDX technology ensures a high-definition, high-performance desktop experience for virtual desktop users anytime, anywhere, on any device. Integration with Citrix user profile manager customises the user experience by delivering personalised virtual desktops.

## VDI-in-a-Box is simple to deploy, manage and scale



Traditional VDI

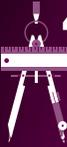


VDI-in-a-Box

 WE'RE GROWING **25%** YEAR ON YEAR

 **83%** 

OUR CUSTOMER RETENTION AND REFERRAL RATIO

 **40%**  
**OF THE TOP 10**  
ARCHITECTS IN LONDON ARE OUR CUSTOMERS

 WE HAVE GLOBAL REACH WITH OFFICES ACROSS 4 CONTINENTS

 OUR COMPANY DIRECTORS HAVE OVER 50 YEARS OF COMBINED TECHNICAL EXPERIENCE



IT'S NEARLY OUR 10TH BIRTHDAY!

(Which means we've been managing complex IT environments for nearly a decade)

**WHAT MAKES CREATIVE SPECIAL AND DIFFERENT FROM THE OTHER HUNDREDS OF IT PARTNERS OUT THERE?**

**The most common question we get asked here at Creative is the most obvious one, my answer to this is always the same and is the reason I chose to be a part of Creative:**

*"No one knows infrastructure better than Creative. For nearly ten years, we have been exclusively focused on working with our customers to help them deliver better ways of managing, securing and deploying IT infrastructure.*

*"Creative is a technical organisation by nature, we are Infrastructure Specialists and not IT Generalists. When it comes to your IT infrastructure, whether that's Networking, Server Platforms, Storage or Virtualisation, Creative have some of the best technical capabilities in these areas that I have ever seen, and I've seen quite a few IT Partner capabilities in my time!"*

*We think differently about your infrastructure and software, it's not just an IT issue it's a business imperative and can be your greatest competitive advantage if managed well. Decisions on infrastructure investment are no longer solely IT ones, but business decisions made by C level stakeholders looking for best competitive advantage.*

**KEITH ALI**  
**MBCS CENG CITP, MANAGING DIRECTOR**



# SIMPLIFY YOUR IT MANAGEMENT WITH 3 STEP IT (UK) LIMITED

Creative Consulting partners with 3 Step IT (UK) Limited to bring various time-saving technological solutions to customers. We've worked together to help clients such as Aecom with their business IT challenges, from acquisition to asset management.

Creative Consulting provides innovative technology solutions, and 3 Step IT (UK) Limited provides a flexible way for clients to track and manage their assets. 3 Step IT (UK) Limited also provides IT leasing, and access to funding solutions from leading banks.

## Key benefits

- ◉ Save time and costs
- ◉ Free up resource to focus on important strategic items
- ◉ Flexible cloud-based asset management
- ◉ Manageable monthly payments instead of upfront capital outlays reduce the strain on budget and cash flow
- ◉ Safe secure data disposal to WEEE standards
- ◉ Transparent ethical leasing
- ◉ Old equipment is repurposed, supporting circular economy

## 3 STEP IT (UK) LIMITED PROVIDES THE FOLLOWING KEY SERVICES

### **Cloud-based lifecycle asset management – taking away the hassle of managing your IT for you**

3 Step IT (UK) Limited manages businesses' assets to monitor the end-to-end lifecycle of all their technology. This can be especially helpful for large organisations with hundreds of devices to monitor, or multiple software licenses to maintain. A comprehensive and up to date asset register makes it possible to know when equipment needs to be upgraded to maintain optimum performance and minimise maintenance costs. Furthermore, outsourcing your IT management can drastically reduce expenditure and enable you to focus your resource and time on core business activities.

3 Step IT (UK) Limited can dynamically track and manage your IT assets effectively and efficiently from initial purchase through to disposal via our own cloud-based auto-discovery tool, or with your existing software. We configure the asset register to your specific requirements and load the data. We ensure any data is kept safe, and that you get the best possible value out of the technology you're using. 3 Step IT (UK) Limited also manages all of your supplier invoices to make it as easy for you as possible, and provides you with a regular invoice that breaks down all your costs so you can see exactly what you're paying for.

### **Ethical IT leasing**

For some customers IT leasing proves a more cost-effective alternative to large outright purchases of IT equipment, easing cash flow and allowing them to retain working capital. We provide brand new or second hand equipment for a fair and transparent monthly fee, manage the assets throughout their lifecycle, and replace them at the end of their leasing period. 3 Step IT (UK) Limited partners with leading banks to give their customers the option to source flexible financing solutions for their IT procurement and management needs.

### **Secure disposal and replacement**

WEEE certified, we know how important it is to safeguard confidential company and client information. To this end our staff wipe clean every machine, removing all traces of your data. We support the circular economy by repurposing the old wiped machines for schools and other organisations seeking quality second-hand IT equipment.



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