Virtual Computing: Desktop virtualisation

"Work is something you do, not a place you go to"

technology unscrambled

Introduction: "Work is something you do, not a place you go to"

There is increasing demand today to enable total flexibility in how people work – allowing them to work from different devices and different locations, seamlessly whilst still having the ability to access the data they need to be fully effective.

This article aims to introduce a number of the technologies being used to achieve this goal. By using this technology effectively, "Work is something you do, not a place you go to" becomes a reality as you are no longer tied to working from any particular location or device – you really can access the information you need, when and where you need it.

The article has been written to introduce the subject of 'virtual computing' through answering a number of key questions – giving the reader the option to (ideally) read through all areas or alternatively jump to particular questions if time is short.

Virtual Computing: Desktop virtualisation

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What is Virtual Computing?
Work any time, anywhere, from any device

Simplicity is working anywhere, on any device. Through virtual computing.

Virtual computing means giving users the power to work any time, from anywhere, on any device; all from a secure, centrally managed virtualised infrastructure – from the datacentre to the desktop. Users will enjoy more flexibility and freedom.

Virtual computing embraces mobile devices, phones and tablets; enables the delivery of applications, desktops and business data as a service; and enables control of what matters, securely and centrally.

Desktop Virtualisation is just one element of Virtual Computing – and this is what this document will be concentrating on.

Benefits of Desktop Virtualisation

Today's and tomorrow's Software on yesterdays hardware

Sweat the Assets

The phrase "Sweat the Assets" has been used by many company finance officers, particularly during the economic downturn. Companies want to maximise the life time of their assets such as PCs and laptops. The problem comes when you try to run the latest software application on an older machine that proves to be under spec'd. Desktop Virtualisation addresses this problem as your company applications and business data reside on powerful servers in the data centre – only the screen output is presented to your PC or laptop – the effect being that you can run today's and tomorrow's software on yesterday's hardware.

Legacy Applications

An additional benefit of Desktop Virtualisation is that it can solve the compatibility issue of running Legacy Applications on new operating systems such as Windows 7 as it can allow Legacy Applications to run in their own virtual environment, independently of the OS.

Benefits of Desktop Virtualisation

Desktop Virtualisation simplifies migrating to Windows 7

Through enabling simple, centralised management of data and systems it becomes much simpler to roll-out the latest operating systems and upgrades to all users.

Imagine being able to centrally upgrade your entire company to Windows 7 in a weekend, instead of months! How? Using 'single instance management' it is possible to separate the device, OS, applications and user personalisation and maintain single master images of each; instead of juggling hundreds of static desktop images, IT can manage and update the OS and Apps once from one location.

Virtualize apps and desktops for instant enterprise- wide updates

Single instances management dramatically reduces on-going patch and upgrade maintenance efforts, and cuts your data centre storage cost by up to 90% by eliminating redundant copies.
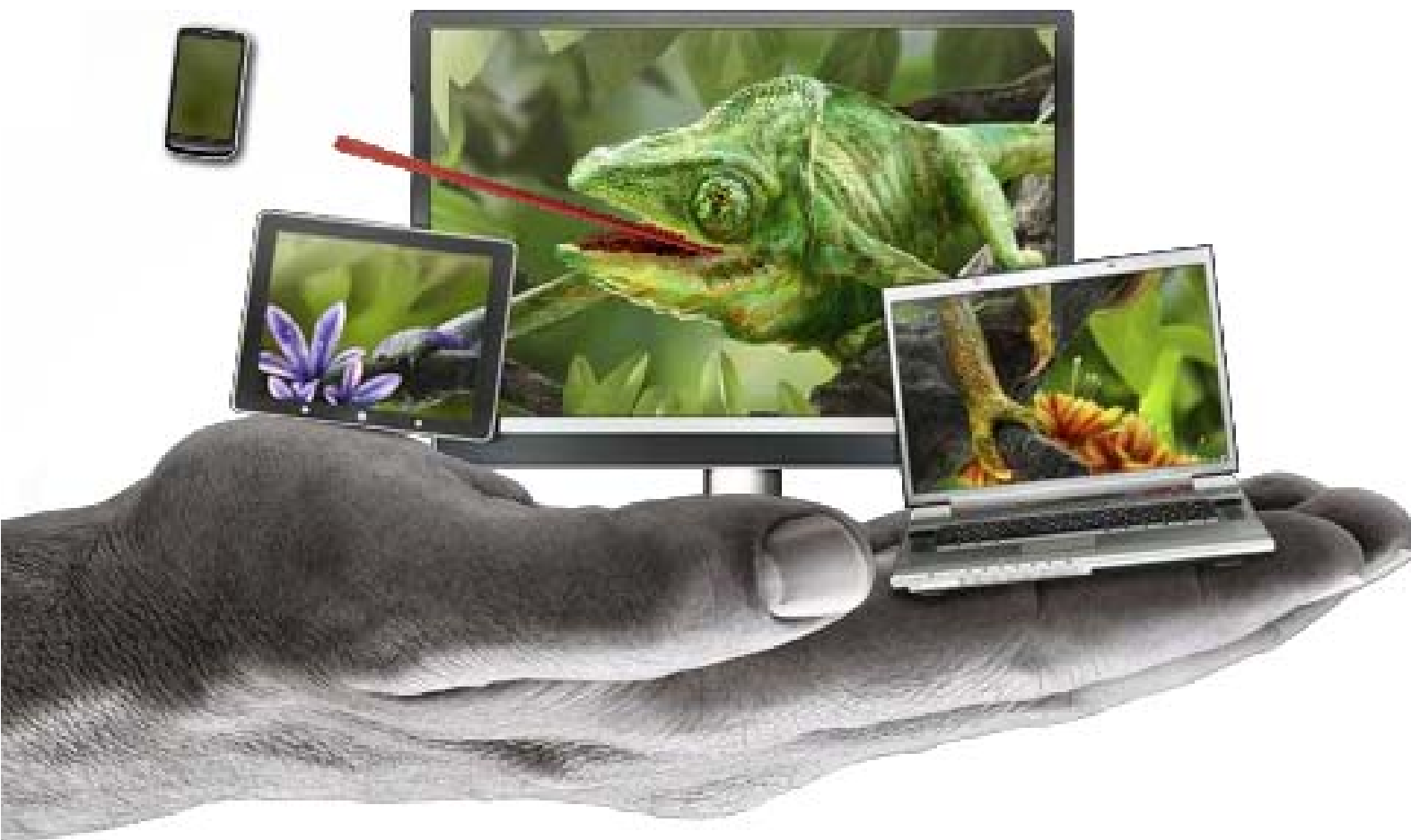
Drive down operational costs; Slash overall migration costs

Upgrading users is as easy as logging in – the new Windows 7 desktop is ready to use.

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Share the secret! What is this magic technology?

There are different approaches to delivering applications and operating systems to users – one that we have used successfully both within our own business and for a number of clients is based on Citrix technology.

Citrix XenDesktop 5

Citrix XenDesktop lets you deliver on-demand virtual desktop and applications anywhere your users work, anywhere your business takes you, to any type of device, bringing unprecedented flexibility and mobility to your workforce.

« Virtualize apps and desktops for instant enterprise- wide updates

« Enables productivity for any user, anywhere, any time, any device

« Increases user choice and flexibility

« Provides virtual computing in high definition

« Improves business agility

« Makes desktop management simpler, more secure and lower-cost

Citrix High Definition (HDX)

Virtual computing in high definition

HDX technology lets you experience all the benefits of centrally managed, virtual desktops while delivering a high-definition, virtual computing experience to every user, on any device.

Virtual computing embraces mobile devices, phones and tablets; enables the delivery of applications, desktops and business data as a service; and enables control of what matters, securely and centrally.

HDX™ MediaStream
Seamless multimedia experience

HDX™ Plug-n-Play
Simple access to peripherals

HDX™ RealTime
Voice and video for real-time collaboration

HDX™ RichGraphics with RemoteFX
High-performance graphics

HDX™ Broadcast
Optimized delivery over any network

HDX™ WAN Optimization
Performance and bandwidth optimizations

HDX™ SmartAccess
Simple secure access to users anywhere.

HDX™ Adaptive Orchestration
Maximize the use of your end point, network and server resources.
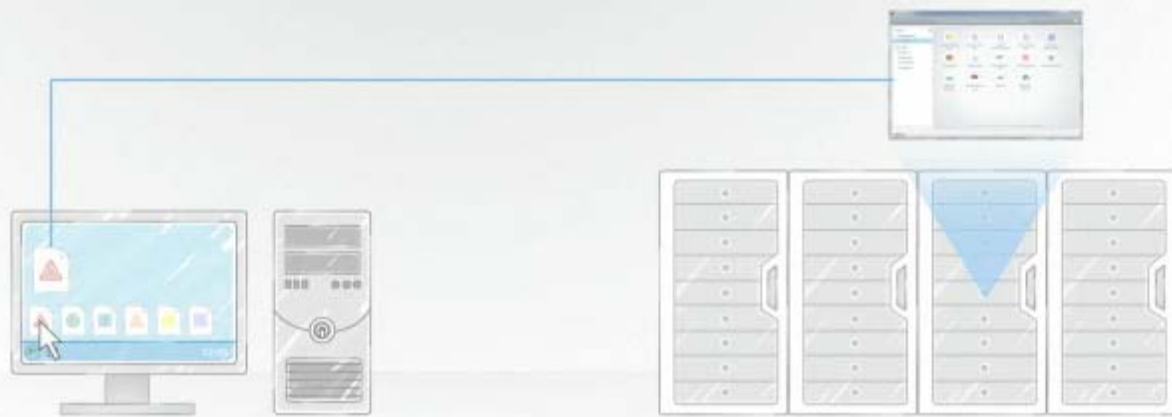
Self Service IT – Citrix App Store

Self-service IT

Users want a simple way to access their business life from the device of their choice—iPads, tablets, smartphones or laptops. Citrix Receiver provides users with simple and intuitive self-service access to a full catalogue of desktops, applications, and IT and business services from a personalized enterprise storefront that requires no IT assistance. Self-service also enables Bring Your Own (BYO) programs, the new business model that empowers employees to bring the device that best suits their individual lifestyle and work style into the workplace.

What about business continuity and allowing for growth?

Citrix Farms provide High Availability and Scalability

A Citrix farm is a collection of Citrix servers which provide published applications to users. In the event of a single Citrix server failure, users are simply serviced from the remaining servers in the farm, providing a high availability service. A secondary benefit of a Citrix farm is that you can simply add further servers to the farm on an ad hoc basis when additional processing power is required due to an increase in the number of users being served, providing a scalable solution that grows with and at the pace of your business.

Cloud Computing – where does Citrix fit in?

Cloud and Application Delivery – a match made in the heavens

Cloud Computing is a subject discussed in another chapter of this series; to reiterate, one of the basic principles of Cloud Computing is to allow businesses to scale up and down their consumption of Cloud based services, in line with their business growth and plans.
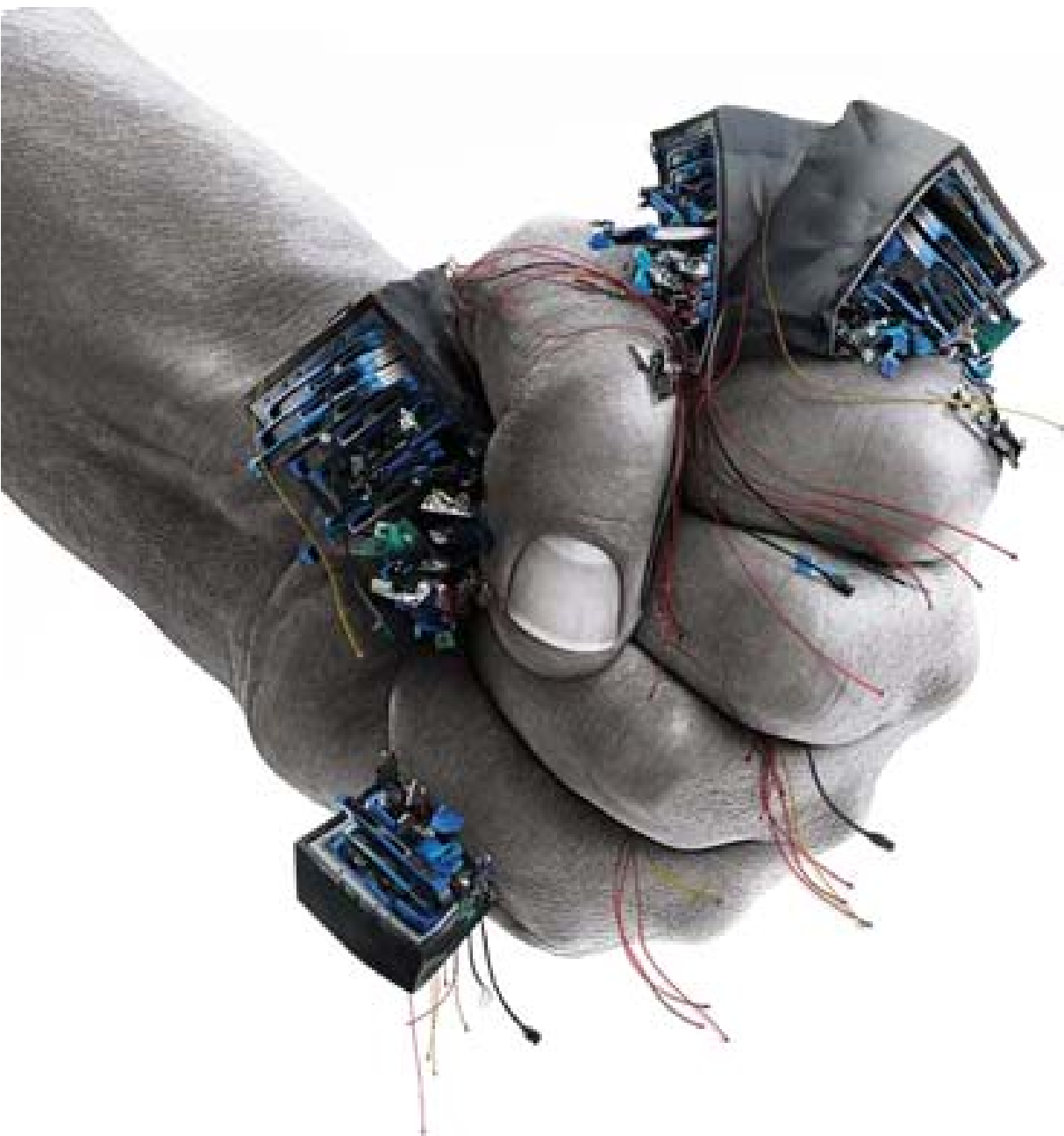
Citrix is an ideal technology to deliver Cloud based services to an organisation. Hundreds of thousands of organizations worldwide rely on Citrix to help them build simpler and more cost-effective IT environments enabling virtual work styles for users and virtual datacentres for IT. These virtual datacentres underpin one of the common types of Cloud Computing that supports **Application Delivery** any time, any where, to any device.

Citrix Service Provider – Hosting – Consumption Licensing

In 2011, Citrix introduced a subscription program called Citrix Service Provider; this allows Tek Response when hosting on behalf of our clients their company applications and business data, to report and bill through a consumption licensing model, allowing the adoption of a more "Cloud-like" model.

Summary: Why should you consider desktop virtualisation?

The current approach to desktop management involves providing end users with a hardware device upon which IT departments install a "standard" image/setup. It has been estimated that desktop hardware and software acquisition expenditures typically account for only 20 – 30% of the total cost of the device, while the remaining 70 – 80% consists of IT maintenance. Furthermore, if local equipment is destroyed, lost or stolen, sensitive company data disappears along with the PC.

What are the key user and business advantages of desktop virtualisation?

- **Improved data security** by centralising desktop lifecycle management in the data centre

- **Easier management of desktops across the enterprise**: desktop IT operations no longer need to repeat numerous, manual tasks to ensure all desktops within an organisation are up to date with the latest patches, updates, upgrades and refreshes to maintain desktop performance

- **Improved desktop performance**: a virtualised desktop doesn't falter and deteriorate over time as the Windows registry becomes cluttered with updates and new software installations

- Separating the desktop from applications **eliminates application conflicts** and **optimises system performance** by keeping applications and desktops in a pristine condition

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Virtual Computing Benefits Summary

« **Reduce Risk of Security Breaches by centralising access to Applications and Data**

« **Reduce your Windows 7 migration costs and time to deployment**

« **Drive down energy related costs**

« **Reduce the overall costs of managing your desktops and applications rollout**

Tek Response: Our offering and case studies

Tek Response and our clients have been using virtual computing solutions for a number of years – **contact Dave Graesser** to discuss some of the client scenarios we have designed and deployed, as well as explore how we can help you drive down cost, reduce risk of security breaches, help you efficiently migrate to Windows 7 and reduce energy related costs.

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Want to discuss your Desktop Virtualisation Strategy or any other aspect of how technology can support your business:

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LinkedIn   http://www.linkedin.com/in/davegraesser

Twitter   http://twitter.com/#!/DaveGraesser

As founder of Tek Response, an established multi-vendor accredited company I am proud of our history of delivering IT solutions which are individually tailored to our clients needs. A key goal in our business is to develop a long term partnership with clients and through our dialogue with them to understand their business needs and challenges and provide them with the advice and expertise they need when making choices about the appropriate technology for their business. I believe this is why today we work with such a diverse range of companies spanning many industry sectors.

My goal in producing these short guides is to help inform our clients a little about current technology trends; how these can improve productivity and performance, whilst reducing costs; and to perhaps help de-mystify some of the jargon and information overload which has become common in today's "communication rich" environment.

My intention here has been to help inform and perhaps provide an idea of the things to consider in some key high profile technology areas.

If you have any questions or would like to discuss your Desktop Virtualisation Strategy or any other aspect of how technology can support your business, please do contact me. I hope this information has been useful and welcome your feedback into any improvements you would suggest or topics you would like to see covered.