How VDI is giving AEC companies a fast path to the next wave of productivity gains

Best Practise Guide

Creative ITC

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EXECUTIVE SUMMARY

More architecture, engineering and construction (AEC) practices are running virtual desktop infrastructure (VDI) technology than ever before. It wasn't always so. VDI used to require extensive and costly IT infrastructure, which needed a lot of management. Success was patchy. This white paper looks at the impact of VDI right across the sector including use cases and best practices.

WHY IS VDI SUCH A HOT TOPIC TODAY?

VDI empowers and mobilises any workforce. Instead of making people sit in front of complex, hard-to-maintain PCs, your business software sits on servers in a central data centre. Everyone wins. Users can adopt different devices to reach their apps and data: in effect, taking their desktops with them anywhere. Meanwhile, the company saves by not having to support machines that need individually updating with relentless regularity.

Today, VDI is easy to deploy and companies in the AEC sector are among the fastest growing adopters

The underlying technology is now more reliable than ever and can deliver the highest performing compute requirements at the drop of a hat. It's also simple to create a business case that stacks up; built on six focus areas as follows.

BETTER MOBILITY

GREATER SECURITY

STRONGER BUSINESS CONTINUITY

TIGHTER COST CONTROL

FASTER TIME-TO-MARKET

HIGHER PRODUCTIVITY

There's strong evidence that VDI is not only being widely practiced, but also forms an intrinsic part of the business continuity and change process. Let's examine these six use cases in more detail.

BETTER MOBILITY

VDI unchains people from desks. That's a must-have for any AEC practice. But, it can't be done using low-res remote access apps like GoToMyPC and LogMeIn. They aren't designed to cope with graphics-heavy programmes like CAD, Revit, Photoshop or InDesign. So, applications crawl along or hang, leaving remote users angry and frustrated. VDI eliminates these issues and packs the power to support a highly successful, effective and truly mobile workforce.

STRONGER BUSINESS CONTINUITY

Imagine if the office got hit by a major incident like flood, fire or an act of terror. Your data maybe safe in the data centre, but if you don't have the compute power to drive the models then working from home, or back-up premises would quickly grind to a halt. If the worst were to happen, VDI-enabled companies can be back in business in the shortest possible time because staff can drive their thin clients remotely from other devices, such as tablets or home PCs.

FASTER TIME-TO-MARKET

Architecture firms need to grow – organically or, increasingly, through merger and acquisition. VDI allows IT teams to quickly spin up desktops for new sites and recruits, instead of having to manually cable and run IT services. So, business expansion becomes faster and less expensive, boosting the balance sheet.

GREATER SECURITY

Moving data and apps from hard drives on PCs into the data centre greatly improves security and reduces the risk of data loss. It also simplifies everyday tasks, like maintaining version control for ever-changing plans and designs. In addition, software and security updates are pushed out faster and in a more controlled fashion. IT teams spend less time dealing with desktop-related issues.

TIGHTER COST CONTROL

Mostly from IT, instant cost savings come with moving to low-cost terminals, eliminating the need for expensive PC and laptop refreshes. Moreover, previously-hidden savings appear from consolidating software licences and eliminating reliance on other IT providers. Simpler and less time-consuming to manage, VDI creates more space for IT to innovate.

VULNERABILITY AND PATCH MANAGEMENT

While cost savings are always welcome they tend not to be the primary VDI project driver. It's productivity that really counts. People suffer less downtime and can work remotely without having to return to the office to share plans, designs and other large files. VDI terminals boot up far faster than PCs. These factors alone are huge productivity boosters. Over the course of a year the effect can be a real eye-opener, especially for firms with lots of staff and multiple branches. IT teams also get time back. Instead of trouble-shooting desktop issues they can just delete the desktop and restore it within seconds, for example.

WHAT DOES BEST PRACTICE LOOK LIKE?

A recent Creative ITC study of leading architectural firms, such as Aecom, Arup, Wilkinson Eyre, BDP, Baker Hicks and Roger Stirk Harbour + Partners, provided deeper insight. The most common reason for moving to VDI was to improve flexible working – whether that's offsite teams based in portakabins and partly-completed offices, or partners finishing off work during the evening from home. Disaster recovery was the second most popular reason for choosing VDI.

Moreover, the firms liked how VDI enabled them to quickly get people in and scale-up IT following project wins – a pleasant change to enduring lengthy lead times from external service providers.

Employees enjoyed a better work-life style and, in this context, VDI was seen to be a differentiator for HR in attracting and retaining talent.
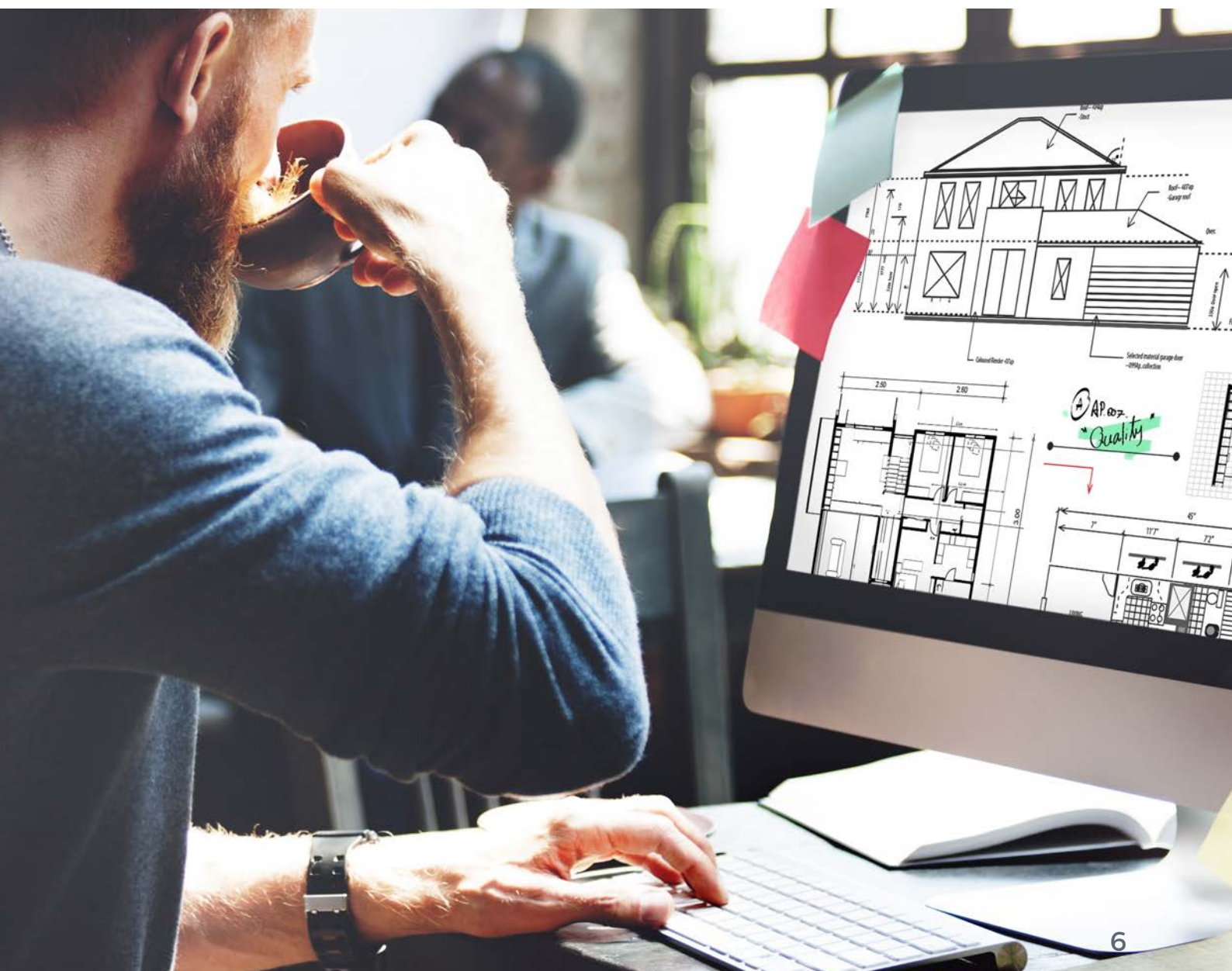
When it came to VDI procurement, many IT teams went for a try-and-buy approach, setting up a controlled proof-of-concept with a small user group to see the technology and benefits first hand. They also welcomed the opportunity to shadow and exchange knowledge with Creative engineers handling the VDI implementation.

The firms chose different financial models with some buying their VDI solutions upfront as CapEx, while others preferred to consume VDI-as-a-service and spread costs as monthly or quarterly OpEx. The latter had the added benefit of one bill and one predictable cost, making it simpler to budget and manage cash flow. To lower costs further still, IT teams built customised user profiles to meet the different needs of office workers versus architects and designers, for example.

Although it was too early to quantify financial savings, the firms reported a significant rise in productivity with VDI reducing the need for duplication and rework. Most felt security had improved, rendering it easier to protect designs and lock-up sensitive information. Malware infection was still a concern, but with limited data held on the user's thin client or device, was less likely to disrupt the practice and its clients.

In conclusion, there's a sound commercial case for moving to VDI. The issue is more around how best to manage the transition.

HOW CREATIVE CAN HELP

Before forming the company Creative's CEO and MD both held associate level global infrastructure roles for a worldwide and award winning structural engineering and design firm. A strong affinity with the AEC sector was there from the very start. Recent successes include delivering one of the world's largest VDI rollouts for data-intensive CAD users at AECOM.

In addition, Creative is an independent company: not tied to protecting legacy platform revenues. Our advice is impartial. With some of the best tech experts around we built a fully managed, hosted VDI platform – saving our clients the time and expense of building their own.

Our clients also have the peace of mind that comes from knowing the platform is fully secure and fine-tuned for optimal performance, so applications will run faster than before.

Creative will be with you all the way on your VDI journey. That's not only in the design, build and implement phases, but also – where appropriate – helping you build the business case based on our extensive experience of helping other customers achieve VDI success.

We'll help with a proof of concept to benchmark and validate the improvements, helping you to tailor VDI support that best suits your practice around one of the following operating models:

1 **Self-managed VDI with all equipment located in your data centre.** You install and manage the solution – we help you specify, design and procure the right components to ensure success.

2 **Jointly managed VDI with all equipment located in your data centre.** In addition to helping you design, procure and install the solution we validate each component, monitor system health and provide third-level technical support. You spin up user profiles and handle service delivery.

3 **Fully managed VDI with all equipment located in your data centre,** or delivered as a cloud service from ours. We take care of everything.

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To get further insight into how VDI could transform your practice, contact us

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