Supporting construction's digital transformation

A Digital Craftsmen Sector Study

Talk to our unique team of experts who are dedicated to helping you and your clients find the right platform to operate safely and productively in the cloud.

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Digital technology offers construction new ways to solve its long-standing challenges

Digital transformation has been slow in coming to construction. Unlike other industries, many of which now seem to be emerging from decades of disruption, the reinvention of construction is only just beginning.

With margins under pressure, contractors of all sizes are looking to streamline their operations. Delays have a domino effect; they cost money and can lead to penalties down the chain. Skills shortages mean increasing pressure to manage staff and resources better, because having people wait around for materials or instruction has far-reaching consequences.

Digital technology enables all kinds of ways to help improve logistics. The internet of things is putting low-cost computer chips into everything from heavy machinery to loading pallets, giving managers vital data about where materials and tools are, and when machinery needs servicing. Wearable devices are doing the same thing for staff, helping companies keep track of where their people are across multiple sites and projects.

Turning data into information

But all of this is just data without the second part of the equation. Managers need to be able to bring data together from a multitude of different sources and turn it into useful – human readable - information that can help them make better decisions. This improves their reporting to their bosses, in turn making the company as a whole function better. So business support systems and dashboards that show in detail what's going on are becoming increasingly common.

Sharing what you're collecting is also increasingly important. That could be with your staff, once again increasing efficiency by making sure they have the information they need at the time and place they need it. Or, as closer collaboration becomes increasingly important on projects, it could be with other companies.
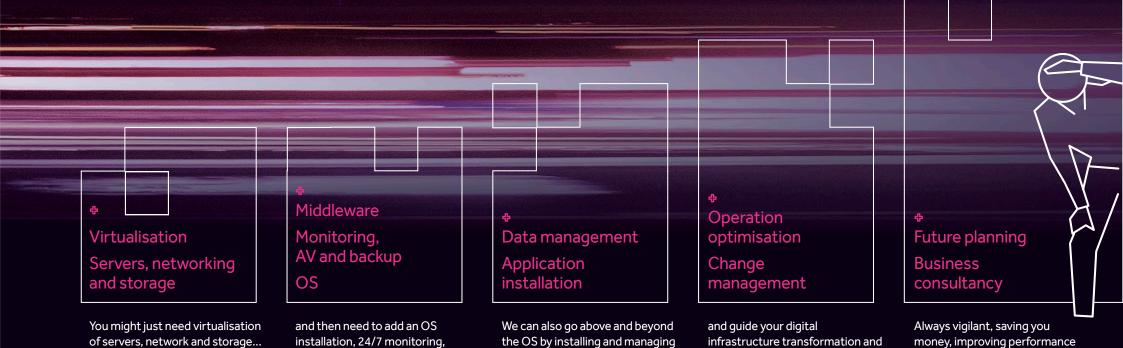
This is another area where technology is changing the face of the industry. Increased memory and computing power in mobile phones, coupled with increasing mobile bandwidth and near-ubiquitous wifi, mean 3D models are moving out of the office and into the hands of the people who need to consult them on site. We're already seeing augmented reality being used to overlay these models onto the real world to make it even easier to show what needs to be done. Meanwhile virtual reality will enable everyone involved in a project to walk through every stage of the work, no matter where they are.

New opportunities, new challenges

But just as digital technology creates new opportunities, it also creates challenges.

Sharing information makes tasks quicker and easier, but only if it's up-to-date and easy to access. That said, it's vital to make sure only people who need the information can get hold of it. The vast majority of data leaks are caused by disgruntled employees, so controlling access to information is one of the most powerful tools you have to prevent security breaches.

When you move beyond sharing with your internal staff online and start sharing externally across the entire project team, things become even more complex.

✛ Virtualisation
Servers, networking and storage

You might just need virtualisation of servers, network and storage...

✛ Middleware
Monitoring, AV and backup
OS

and then need to add an OS installation, 24/7 monitoring, secure back-ups and advice.

✛ Data management
Application installation

We can also go above and beyond the OS by installing and managing business critical applications...

✛ Operation optimisation
Change management

and guide your digital infrastructure transformation and make improvements to streamline operations.

✛ Future planning
Business consultancy

Always vigilant, saving you money, improving performance and helping build sustainable, digitally empowered businesses

Perfect for your shape of business.
Our managed technology services can help secure both your reputation and your data on any platform.

Different companies will use different software, which may or may not be compatible. That's fine if you're the main contractor, as you can demand all your sub-contractors use your system. But if you're a subbie that can mean running different systems for different projects, increasing expense and making it more difficult to extract and unify the information you need to run your own business.

In addition, the more people who have access to your business information, the more risk there is of that information being stolen. Data security experts talk about the "thousandth window", meaning that hackers will keep looking for entry points into a system until they find one that is unprotected, whether that means probing one computer, a hundred, or a thousand.

Counting the cost

The other big issue is financial. When one of your main reasons for greater use of digital is to save money, you don't want it to cost a fortune. You also need to think beyond the capital costs of the hardware and software and consider operating costs. These include the people needed to keep the whole thing up and running, the storage required for the data you're generating, and the processes to recover quickly from the accidents and malfunctions that will inevitably occur.

Depending on the size of your business, you may already have an IT department, but in most cases their focus will be on maintaining the company's hardware - laptops, smartphones and so on. They're unlikely to have the skills needed to create and manage the infrastructure you're going to need to take advantage of digital transformation. It's simply not their job. You can of course bolster the team with additional specialists, but if you're not an expert yourself, hiring the right people can be difficult, and expensive if mistakes are made.

Build stronger foundations for your success

✛ **Evolve technology infrastructure services that help you avoid late delivery penalties by making workstreams more efficient**

✛ **Move critical information out of the office and into the hands of those that need it on site making your teams more efficient**

✛ **Install technology services and hosting that support digital transformation, ensure fail-safe operation and save you money**

✛ **Help ensure data compliance and risk management – including navigating the intricacies of GDPR**

✛ **Instigate disaster recovery protocols to avoid productivity disruption if systems were to fail**

Your business is building nicely, until suddenly it's not.

A security breach can mean instant loss of customer data, business-critical information and a loss of brand trust. And, while that may sound scary, protection is simpler, and cheaper, than you may think.

As Digital Craftsmen, we take pride in failsafe security systems in the cloud, hand built for you, which you don't have to think about. In fact, the first you'll hear of a problem is usually when we tell you we've fixed it.

We're long-term partners with many growing enterprises, offering made-to-measure, managed technology services and hosting for the financial, education, construction and government sectors, among others.

Our personal, dedicated approach could be why, in over 15 years', we've never lost a client on price or performance. Trust is everything.

Only the brightest, most exciting minds make it onto our team, innovating day by day. We're accredited as an Investor in People and, in recognition of our extremely secure processes, we've achieved ISO 27001. We operate with an integrity, and enthusiasm, unmatched by others.

With an 83% likelihood of a security breach occurring, and tightening legislation, it's vital to have a fully-compliant system and the right support in place. With your business protected, you can focus on achieving your potential.

Secure your ambition | digitalcraftsmen.com