Future-focused IT

Secure, speedy and at scale: how to ensure your future's bright in the cloud

Cloud technology has huge potential to grow businesses, but for data security and success, planning and staff involvement are as important as the telecoms infrastructure that drives it

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▲ Illustration: Michal Bednarski

Radical advances in technology have come thick and fast in recent decades, but few have promised to revolutionise the way we work to the same extent as cloud computing.

Offering the promise of unlimited data storage and fathomless virtual workspaces, the cloud is certain to remain a central component of our work systems, even as other tech advances are embraced by industry in the future.

According to the CIO Tech Poll: Tech Priorities 2018 study, cloud spending is now a major priority for IT leaders. The report found that, after predictive analytics and business continuity recovery, they anticipate their biggest funding outlays will be on public and hybrid cloud systems.

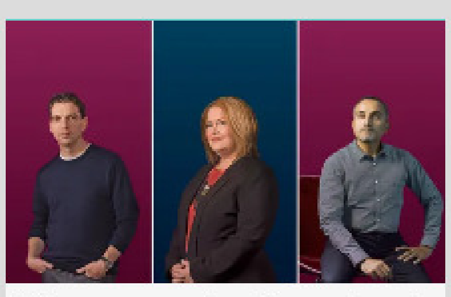
Take-up of cloud technology varies by industry, with discrete manufacturing forecast to spend the most – $19.7bn (£15bn) – by the end of this year, followed by professional services –$18.1bn (£14bn) – and banking – $16.7bn (£13bn) – according to International Data Corporation.

The impact of this growth on jobs also varies by industry. The World Economic Forum (pdf) predicts that sectors such as business, financial operations and sales will see employment growth until 2020, as a direct result of cloud tech, while other sectors, such as office administration, will see negative growth.

“With all new technology trends, you'll see a scale of adoption with larger – typically more risk-averse – companies at the one end and smaller, more agile companies at the other,” says Gary Walker, chief information officer at AXELOS.

Walker says that, in his experience, most industries are now considering some sort of cloud service, but the type and nature of its adoption differs by requirement and budget.

These cloud configurations range from infrastructure as a service (IaaS) – a form of cloud computing that provides virtualised computing resources over the internet – to PaaS, a platform-based service that allows users to develop, run and manage applications without the complexity of building and maintaining the infrastructure. There's also software as a service (SaaS), a software distribution model in which a third-party provider hosts applications and makes them available to users over the internet.



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Hybrid cloud is also widely utilised, combining on-premise, private cloud and third-party, public cloud services with orchestration between the two platforms. Walker says this is often favoured by firms taking their first steps with cloud computing: “This approach can take more upfront planning, but offers a quicker route to cloud adoption, allowing companies to deliver big benefits at the outset of cloud adoption to win over those holding the purse strings.”

Information challenges
As with all technological advances of scope, though, there are potential roadblocks to the growth of cloud technology – the biggest of which is, arguably, security.

But Mark Hill, chief information officer at technology recruitment firm Frank Recruitment Group, believes many of these fears may be unfounded. “While some of these concerns have been valid,” he says, “a lot of it is based on myth. Modern clouds, operated by big global providers, are by far the most secure platforms for data for the majority of organisations.”

He argues that it's actually control of data, rather than keeping it from the reach of external and unscrupulous hands, that is the real issue.

“When you adopt the cloud, you are handing over both the car and the car keys, and while you can mitigate the risk, this is something that many traditional IT folks still find hard to accept.

“A much more legitimate security concern is data residency and conflicting global privacy laws, but while the growing number of regional data centres around the world is helping to combat this, it is still often a challenge to overcome.”

A company's existing IT workforce is central to maintaining the sanctity of this data, but, he adds: “These people often don't have the modern cloud skills, or willingness to change. They see the cloud as a threat, rather than as an opportunity.”

A modern workforce
So securing this buy-in from a workforce is key when it comes to adopting cloud tech. The size and scope of a business can determine how difficult that is to achieve, Walker says.

“Smaller organisations tend to be more accepting of large amounts of change, although their tolerance for continual change can be lower than in larger organisations,” he says.

“That said, I've seen, in the past five years, organisations in highly regulated sectors that are now actively pushing transformational, digital-led change.

“Many of these organisations have seen the success of small, agile, often wholly digital organisations, and are seeking to mimic the success in their own companies.”

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The future
For the cloud to continue evolving at pace, the adoption of faster data transmission speeds, via tech such as 5G, is hugely important.

“It is the fundamental ingredient that will allow companies to enrich the user experience for end users and deliver the next generation of cloud-hosted platforms,” Walker says.

He adds that while telecoms infrastructure used to be considered a “luxury”, it is now as essential to corporations and individuals as access to water and electricity.

“Mobile telecoms infrastructure,” he says, “is also helping to drive the move to always-on, always-connected equipment that allows for more efficient delivery of services – delivery of a service to an end user at the right time and place, automatically.”

But he warned that despite the drive to expand such technology, it remained essential for the implementation of such new tech to be supported by the right processes.

“Companies should always remember that the technology that underpins their agile innovation drive and cloud adoption, and which facilitates mobile working, always needs to be carefully and rigorously architected, designed and executed in a disciplined fashion.”

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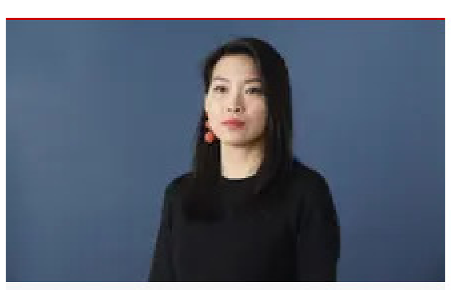

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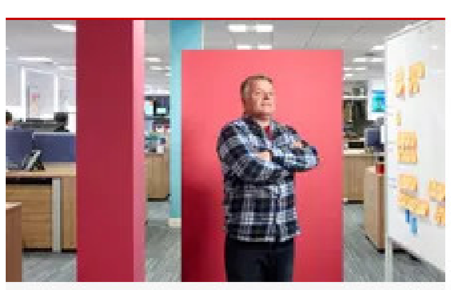

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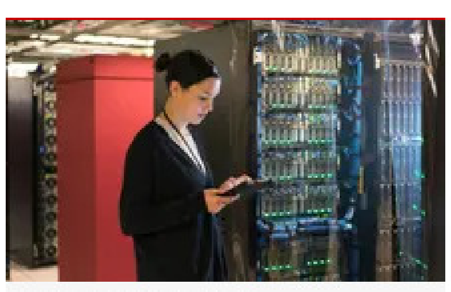

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