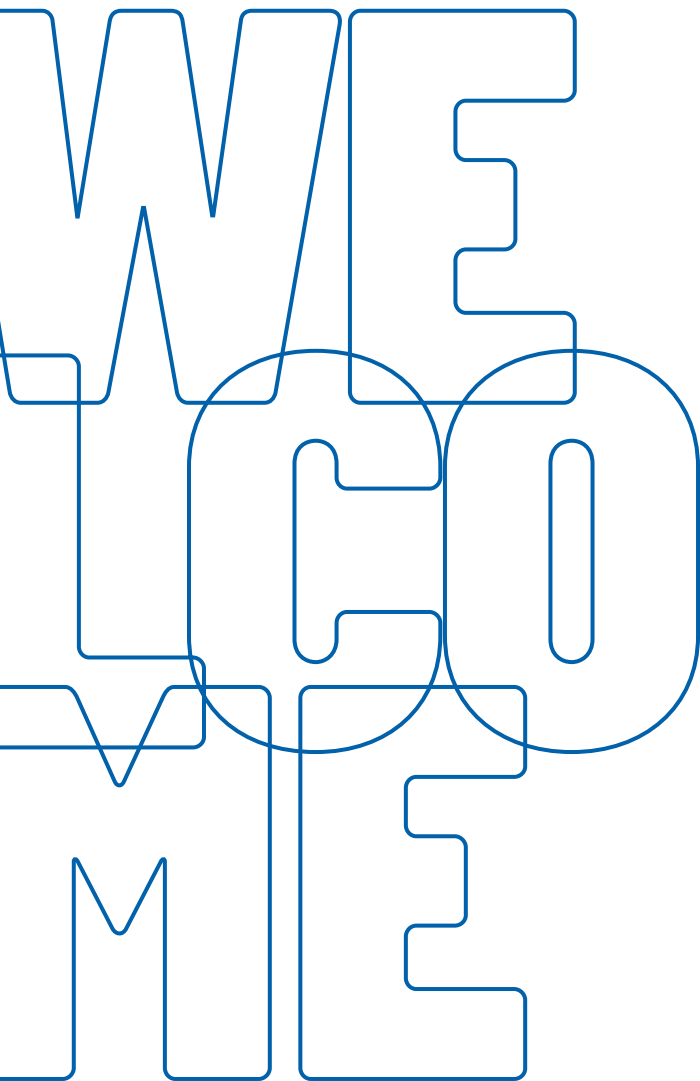


# COMPUTACENTER TECHNOLOGY INSIGHTS



H2 2020



## Welcome to the second edition of Technology Insights.

We publish this document bi-annually and even in the early part of the year it was impossible to foresee or predict how dramatically our personal and professional lives would change. I hope you and your families have been keeping safe and well.

Our strategy for 2020 is centred around 4 “mega trends” that we see shaping our market and our customers. These are; Velocity, Vulnerability, Sustainability and Experience. I am not sure, even with the benefit of hindsight, that we could have picked four better words to describe the market at the current time, although clearly there are wider contexts for each of these trends that we must remember to keep in mind, despite the immediacy of Covid-19.

The mega trends are a context to anchor what we seek to do for our customers, which we summarise as Enabling Success. At the simplest level we do this in two key ways, helping our customers to **drive operational efficiency**, and **increase agility and growth**. To bring that to life, I’d like to offer a perspective of the past six months in more detail.

Like all organisations we have transformed how we work in order to keep our people safe, and to enable us to provide continued services and experiences to our customers, many of whom form part of the “Critical National Infrastructure” of the UK. This past six months has in large part been about us leveraging our core capabilities to service the needs of our customers, against an unprecedented demand profile. But it has also been a period of rapid innovation and change. We have launched exciting new partnerships [See Martin’s update later] and developed 13 new services in 8 weeks to support the new requirements that the Covid-19 situation has placed upon our customers and their users. There has also been people change too, with the appointment of a new Workplace CTO who you’ll hear from for the first time in this paper, as well as continuing to strengthen the CTO Office with additional expertise to our Solution Leader team.

I hope you enjoy the insights from this latest publication. As a team we are always available to share further perspectives and to engage on your specific initiatives where Computacenter can support you.

**Paul Bray**  
CTO, UK&I

## Meet our CTOs



**Paul Bray**  
CTO, UK&I

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**Paul Casey**  
CTO, Platform & Hybrid IT

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**Colin Williams**  
CTO, Networking & Security

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**Ashley Richardson**  
CTO, Workplace

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## ONE

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It's impossible to start an interview without reflecting on the events of this year. What major impacts have you observed as a result of Covid-19 in your business area?

**PAUL:** It has impacted every one of our customers, but the effects are very different depending on which of the following categories they fall into;

1. Business demand has dropped dramatically.
2. Business is impacted somewhat, either negatively or positively.
3. Covid-19 has resulted in a significant spike in demand and we are all hands to the pump.

Despite the vast difference in fortunes these situations bring to the customer, there are often similarities in the method to reduce the impact. The customer who fits in to category 1 is typically looking for ways to remove hard cost from their operations and to very quickly get lean.

At the other end of the spectrum, the last thing customers who are going through a boom due to Covid-19 need are system outages or service issues caused by a lack of resources. In this case, optimisation activity can be equally applied to identify wasted or overprovisioned resources, either to free up cost in the case of customer 1, or to free up double digit percentages of additional capacity to keep up with demand in the case of customer 3.

We are all guilty of being fickle when a brand cannot service our impatient needs as a consumer and are unlikely to stay loyal. I recall this scenario exactly during Covid-19 when the website for a DIY store informed me I was in the queue to get onto the website and it would only be 1.5 hours until I got my turn. One and a half hours was the same time it took to order on a competitors site, collect the item and complete my repair, switching my loyalties to a competitor with website capacity and headroom for my business.

**COLIN:** We'd already forecasted 2020 would be a year dominated by the need for end-to-end user experience enhancement and network automation. The acceleration towards multi-cloud service delivery was evident in the market the previous year driving additional emphasis in network automation and device visibility. The lockdown increased the level of cloud-delivered workloads, shining a greater light on the benefits of automation and everything as code, including networking.

Secure user access was one of the saviours of the lockdown. The network proved its worth at a critical time for all with organisations needing to keep the users safe and secure, allocate and manage mobile devices and deliver access remotely to corporate resources.

It also raised awareness of the tight coupling between networking and security stimulating a rethink to shift legacy perimeter centric controls to dynamic user and device edge aligned security approaches. Now is the time zero-trust security ideals start to shift from viable but unlikely architectural considerations to a north star for the evolution of enterprise security.

And finally, lockdown reinforced the importance of network-wide visibility whether user, application, device or system. With users interacting with services remotely from everywhere, an end-to-end view of user device health, security posture and application experience, whilst challenging, became essential.

**ASHLEY:** Like most people, I'm sure the initial worry about what would happen both from a personal and business perspective weighed heavily on the mind. The kind of challenges I personally faced were reflected across many of our customers and their colleagues; how to work from home, safely, securely and productively whilst in some cases having to home school or care for at-risk family members.

From these challenges we saw a huge demand from our customers for laptops, monitors, webcams and other peripherals to enable remote working, although oftentimes the channel lacked the availability to service all of our customer demands. In addition, many customers had the requirement to accelerate digital transformation to cloud or hybrid services to provide collaboration and communication capabilities or to expand the capability of their remote access solutions.

Given that most of our customers' offices were closed, a number of our programs of work had to be paused or delayed, and although many of our customers had Business Continuity Plans in place, nobody had really planned for an eventuality of not being able to use any offices. The speed of change and effort necessary to get remote working capabilities up and running put great strain on some organisations, and we were ready and able in the workplace line of business to be able to support our customers in this regard. In fact, many of the services that we had previously delivered to customers at their offices were repurposed to enable them to be provided as remote capability, such as Virtual Tech Bars and Virtual Engineering.



**TO GET REMOTE WORKING CAPABILITIES UP AND RUNNING PUT GREAT STRAIN ON SOME ORGANISATIONS, AND WE WERE READY AND ABLE IN THE WORKPLACE LINE OF BUSINESS TO BE ABLE TO SUPPORT OUR CUSTOMERS."**

**ASHLEY RICHARDSON**



TWO

What topics are front of mind for customers as you look to the rest of 2020 and into 2021? What are the key challenges or opportunities?



**PAUL:** The fallout of Covid-19 has been an acceleration in the customer appetite for Cloud. Like me, the impatient hardware store consumer, our customers have experienced uncertainty with the supply chain for IT assets which has had a knock-on effect on the server and storage market. As Covid-19 started to impact Asia, there were warnings about the infrastructure supply chain. Then as the lockdown swept Europe and then the UK, the realisation that there could be an issue in sourcing technology, and access to the data center to enable the platforms, gave those that were on the fence about public cloud the missing part of the argument in favour of public cloud use. What we are seeing and have seen throughout the period is a steady uptick in demand for Cloud Professional Services - both to optimise, and also to help ensure the customer is well architected [efficient, optimised and secure] and well automated across their public and hybrid cloud use.

These engagements are often urgent for the customer and experience tells us they are 12 months plus engagements, so for us the challenge is less one of creating demand, and more about quickly adding enough high-quality capacity to our teams to work alongside our customers. For the customer this brings challenges in terms of unplanned spend for the remainder of 2020 and the prospect of re-aligning budgets and in some cases de-prioritising other projects.

**COLIN:** Let's start with the challenges first. Connected user behaviour changed during the period of the lockdown. This means the current usage of networking and security platforms has not only changed short term it has delivered a template that may never return to its previous state.

Now is the time to change the way networks are used, operated and managed, but with security in lock step with networking. Thankfully the benefits outweigh the downsides.

The current IT network has been a victim of its own reliability for many years with few compelling reasons to change something so performant, reliable and functional.

Security was also an area of mixed fortunes. Even with the advent of cloud computing, it was common to see a legacy security infrastructure defined operational template, superimposed onto a dynamic, software centric multi cloud landscape. This must change. The opportunity to review the current state driven by revised business requirements for "Dynamic IT", allows organisations to gracefully evolve both networking and security to become the technology enablers



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**COLIN WILLIAMS**

of seismic business change. Automation of both networking and security should not be viewed as a removal of humans across the board from the IT value chain but instead a redistribution of selected people to positions where human intelligence can be used to transform the business, with automation delivering relevant systemic tasks.

**ASHLEY:** Given the pace of change during the period, much of the discussion has been around consolidating the things that have been done to enable remote working and taking the good parts whilst ensuring that everything deployed meets the many standards required for the business.

One of the more interesting challenges that many IT organisations I have spoken with now have, is resetting or setting a new perspective with the wider business on the pace of change that should be implemented, versus the expectation that service transformation and innovation can continue at the unprecedented rate it has been. The common perception is that we will settle somewhere in the middle of pre and post Covid-19 states. The opportunities moving forward revolve around the future of work, and now that remote working has been proven to work in most cases, the challenge is how we support organisations in their transition to a new way of working.

Bringing parity to users wherever they may be is another key challenge. How do we provide services to both home and the office, what will the office look like after Covid-19? We can help to both shape and deliver the services that organisations will need to provide to their user community. We can help transform customers' office spaces to reflect the new way of working; somewhere you go to for better collaboration than you can get over a video conferencing platform and help reduce the real estate that our customers are invested in. Modern Management and deployment comes into its own in this new way of working; divesting the location of a person from the deployment and management of a device will become second nature along with the consolidation of business applications and selecting the right place for these applications to be located and served from and of course the platform(s) used to access this data and services in a secure way.



## THREE

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The market has been active in terms of acquisition and consolidation. Has there been any activity in your area that's caught your eye specifically?

**PAUL:** Uncertainty in the markets always throws up new and interesting acquisition news, but the ones that really caught my eye were Rancher Labs being acquired by Suse, and Nvidia buying Mellanox & Cumulus. The Rancher acquisition, as a partner, brings a level of uncertainty until we see the Suse plans in full, but Suse have acquired a great technology roadmap with Rancher, particularly around K3S and Kubernetes at the edge story.

For Nvidia, as an established top tier Elite partner for compute, virtualisation and DGX, the recent acquisitions are great news for what was already one of the most exciting vendors we work with. Our sales force and customers love the life changing AI and deep learning stories and possibilities that come from Nvidia technology, so we will watch with interest to see where they go next, especially if the rumoured ARM acquisition happens.

**COLIN:** One of the hottest topics in town at present is SASE [Secure Access Service Edge]. The need to revise remote user access to corporate resources has been present for many years but not prioritised for change. Users complain about complexity with too many steps and security related actions to remember to gain access to systems.

Operational teams have struggled with the fragility of remote access gateways and platforms. Multiple access environments were often required for different architectural users, types of systems, and different operating environments. Not forgetting the breadth of security controls used to deliver consistently secure remote access required a multitude of systems and processes chained together leading to higher costs and increased complexity.



SASE flips the script and binds together network access elements with a span of relevant security controls to deliver simplified, scalable but enhanced remote access for users, whether internal data center or external public cloud access is required. With the "Internet of Things" era already the norm, driving the need for access by people and things everywhere, SASE is destined to become a must-have solution for all.

Lastly, network assurance and visibility will become a key solution set as enterprises lead with user and customer experience therefore must always ensure optimum application health. The network sees all traffic and transactions from client to server, signposting the network as the perfect platform to address problems before they affect the user. Pre-emptive, proactive remediation is a must-have for 24x7x365 business.

**ASHLEY:** There were a couple that caught my eye, the first being Microsoft's acquisition of CyberX - an Israeli IoT security firm. Microsoft have steadily grown over the last few years into a comprehensive security company with services like Azure Security Center, Sentinel and the Office 365 suite of security products. This new acquisition focuses on the IoT side of things, so this leads me to believe that Microsoft might start to widen the management capabilities of Endpoint Manager to cater for a broader set of devices, allowing organisations to monitor, manage and secure

the workplace with a single platform, in a manner like VMware Workspace One. That's quite an exciting prospect of seeing both enhanced security and device types managed by Microsoft.

Secondly, and another Microsoft acquisition, is Softomotive. Microsoft had started reaching into the Robotic Process Automation field with acquisitions like Mover in 2019 which have been folded into the Power Automate platform. Microsoft continues to push into the automation space and Softomotive will provide further capabilities within the Microsoft automation platform to reduce repetitive and mundane tasks, shifting these away from people and allowing better use of the time individuals and organisations have to the benefit of the business.

The Power Automate platform as is true of the wider Power platform suite is aimed at citizen developers, requiring very little to no code to set up these processes. I can see the Windows operating system using AI to automate tasks in the future with little to no input from the user. Automation is another topic that many people are talking about right now.



**OUR SALES FORCE AND CUSTOMERS LOVE THE LIFE CHANGING AI AND DEEP LEARNING STORIES AND POSSIBILITIES THAT COME FROM NVIDIA TECHNOLOGY, SO WE WILL WATCH WITH INTEREST TO SEE WHERE THEY GO NEXT."**

**PAUL CASEY**



## FOUR

Are there any new or emerging partners or solution themes that have hit your radar in the past 6 months that you're keen to explore further?



**PAUL:** Whilst I'd love to share more about all the new partnerships we have in the pipeline, you will have to wait until we have concluded the activity. What I will say is we are signing up a lot of new partners just now, in the area of Discovery, Transformation and Migration as we build the toolkit to allow our customers to transform faster to the right platform for their circumstances, and then develop operational capability in multicloud quickly.

One vendor I can talk about is in the area of workload migration, and that vendor is RiverMeadow. RiverMeadow remind me of those early days with Platespin, where we have a complete meeting of minds about the opportunity, customer success and the needs of the market. Jim Jordan is the CEO at RiverMeadow and some of the developments and 'firsts' Jim and the team are doing with some of the hyperscalers is very exciting for both them and us.

**COLIN:** The challenge and opportunity in the networking and security market continues to be one of delivering focus through the noise. Prioritising what to do now and next remains a concern for organisations. It's less about new technologies that may affect the industry and more of an evolution of existing technology-centric activities to intentionally drive business forward – networking and security can no longer be IT passengers.

Networking and security automation has moved from an interesting technology endeavour to an essential business change agenda and may well be the biggest opportunity for the industry to positively transform the operational

## IT'S LESS ABOUT NEW TECHNOLOGIES THAT MAY AFFECT THE INDUSTRY AND MORE OF AN EVOLUTION OF EXISTING TECHNOLOGY-CENTRIC ACTIVITIES TO INTENTIONALLY DRIVE BUSINESS FORWARD – NETWORKING AND SECURITY CAN NO LONGER BE IT PASSENGERS.

### COLIN WILLIAMS

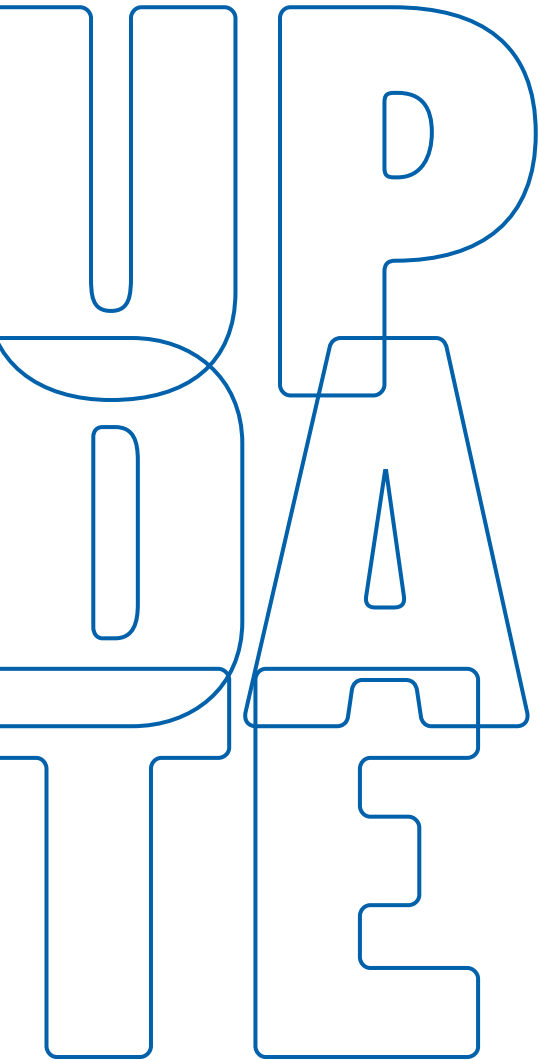
landscape. We are seeing increased levels of interest in automation platforms and frameworks which favourably positions vendors with programmability and automation at the heart of everything. The end-to-end Arista story with automation from campus to core is compelling. Networking industry leader Cisco offers a formidable suite of automation solutions including NSO and Crosswork to offer organisations multi-technology domain, enterprise-scale, automation-led, end-to-end service delivery.

Flipping to security, ransomware remains top of mind as a business-critical issue, with the potential for damage far greater than the effort required to deliver the attack. The drive for increased traffic visibility across the network whether flow, cyber or user aligned, deeply analysed working in tandem with informed and educated users may will help to thwart all but the most advanced and focused ransomware cyber-attacks. Sadly, for now, ransomware is here to stay.

**ASHLEY:** We have covered much of the new or emerging solution themes during this discussion – one of the topics that has been heard in whispers for a while is 5G. I haven't seen any major developments on this over and above those in the consumer space. The possibilities for 5G as an enabler for high bandwidth, low latency networks for IoT and edge devices is real, but still probably a little way off. I'll keep my eye on that one though.

Given the situation we are in right now with Covid-19, one of the big topics for discussion is the new or next way of working. Many of the organisations I speak with are actively looking at reducing the office space they have, with a blend of people working remotely and fewer in the office. The discussion has then been around; what do we do with the existing spaces in the office, especially the meeting rooms? There is a train of thought that the office will become a place for interactive collaboration, a place you go to for team brainstorming and planning, to drive an interaction not achievable over video conferencing as I mentioned previously.

This being the case, the technologies used to bring these spaces together requires interacting with a broader set of stakeholders, from HR through to -IT and facilities. The creation, deployment and management of these solutions are far broader than just technology and will require partnerships with expert sound and space designers along with furniture, fixtures and fittings. I have seen some very creative deployments of collaboration spaces, and I think this will be one area that we can explore and expand our partnerships and capabilities in support of our customers.



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## STRATEGIC INITIATIVE UPDATE

In June of this year, Computacenter announced that we had embarked on a significant partnership with Amazon Web Services, as part of our wider Digital Power Proposition. This is a major announcement for us, and the result of a vast amount of work undertaken in recent months to ready ourselves to provide public cloud services at scale.

We have asked Martin Clarkson, who is part of our extended office of the CTO and is our Solution Leader for the AWS Ecosystem to explain the importance of this recent announcement and talk a little bit about why we are all very excited to bring this to market for our customers.

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**Martin Clarkson**  
SOLUTION LEADER

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### What are we doing and what does the agreement mean?

The intention of the agreement is to ensure that we can rapidly accelerate Computacenter's capability, and support our enterprise customers at scale in helping them successfully adopt AWS services and products to the benefit of their business. As you would expect, there are many different things we are doing as part of this programme to achieve that goal, but to give you some examples; we are jointly making big investments on both sides to considerably increase the number of individuals we have certified at a high level in AWS technologies as well as AWS supporting us to ensure that those people are successfully delivering good quality projects to our customers.

We also have a big focus on making sure that those successful projects are shared with our wider customer base and to that end, gaining the relevant competencies that demonstrate we have the experience that our customers are, to a great extent, looking for.

### Why are we doing this?

The short answer is because our customers need us to and they've told us that many times already. The longer answer is that many of our customers are working hard to transform the way that their organisations offer IT services in support of their desire and need to move faster, adapt quickly and be efficient in the way that they deliver new products and services to market. Many have realised that public cloud can help them do this, but the transformation is complex. Not only from a technical perspective but also from a people and process standpoint and this leads to a need to change at a rapid pace.



Computacenter are committed to being there to help our customers through this transformation and the agreement we have recently signed with AWS will allow us to continue developing and scaling our capability in such a way that we can meet the demand from our customers and bring to bear our experience needed to guide them through this change.

### Why now?

This is always a difficult one to answer. The honest response is that we have been working on this in the background for quite a while, whilst continuing to build out our capability, but we really see that now is the time to accelerate. In most of our customers, there are typically signs of a good AWS use case, a project if you will, that has clearly demonstrated the value when AWS is leveraged in a positive way but the challenge of what you do next is massive. Legacy IT systems and applications are there in abundance and if customers



**COMPUTACENTER HAVE A FOCUS ON ENTERPRISE CUSTOMERS, AND WE HAVE A STRONG TRACK RECORD IN HELPING OUR CUSTOMERS DELIVER LARGE, COMPLEX IT TRANSFORMATIONAL CHANGE.**

**MARTIN CLARKSON**

are going to scale this transformation to address that much wider estate, partners like Computacenter need to play a big part in helping in the migration into the cloud.

Much has been said all around the industry that migration into the cloud isn't a simple "lift and shift" but the need to accelerate and start to unlock the value of a modern cloud platform like Amazon Web Services is of vital importance. If not, momentum starts to wane and the business will start to revert to some of the old practices that it knows and loves. The Computacenter vision is to be there to enable our customers in delivering their success and our ability to scale and be there to deliver at pace is why we believe that this agreement with AWS is massively important right now.

### Why are we relevant to AWS?

Computacenter have a focus on enterprise customers, and we have a strong track record in helping our customers deliver large, complex IT transformational change. We understand the intricacy and how challenging this can be to those larger customers and we have developed years of understanding that we can offer to both AWS and our customers. This, coupled with the scale of capability we are delivering is important to AWS because momentum in this type of change is key. You can't deliver a change designed to help the organisation move at pace and then take too long to make it happen.

Now, this doesn't mean that these changes aren't a longer-term transformation but maintaining a high velocity means that the organisation stays with you and that is important because this change is absolutely about the business. It's

about making IT an enabler of business change and getting away from the reputation that exists in some organisation that IT "slows things down".

### Why is AWS relevant to customers?

AWS have a saying that I particularly like, which is something along the lines of removing the undifferentiated heavy lifting from organisations and have them exert their energy on activities that absolutely differentiate them from their competition. This, in my opinion, has to be a success criteria for any company making this change and right now AWS have a massive range of services and product offerings that support customers in doing this. Now that's not to say that AWS are the only public cloud platform that customers will use but the relevance of public cloud to our customers is

pretty much undeniable, the differentiation that comes from being able to leverage the tools to build value rather than build the plumbing means organisations can experiment with ease, build new services for their customers quickly and focus on the things that make a difference to their organisation which is all any company really wants to do.

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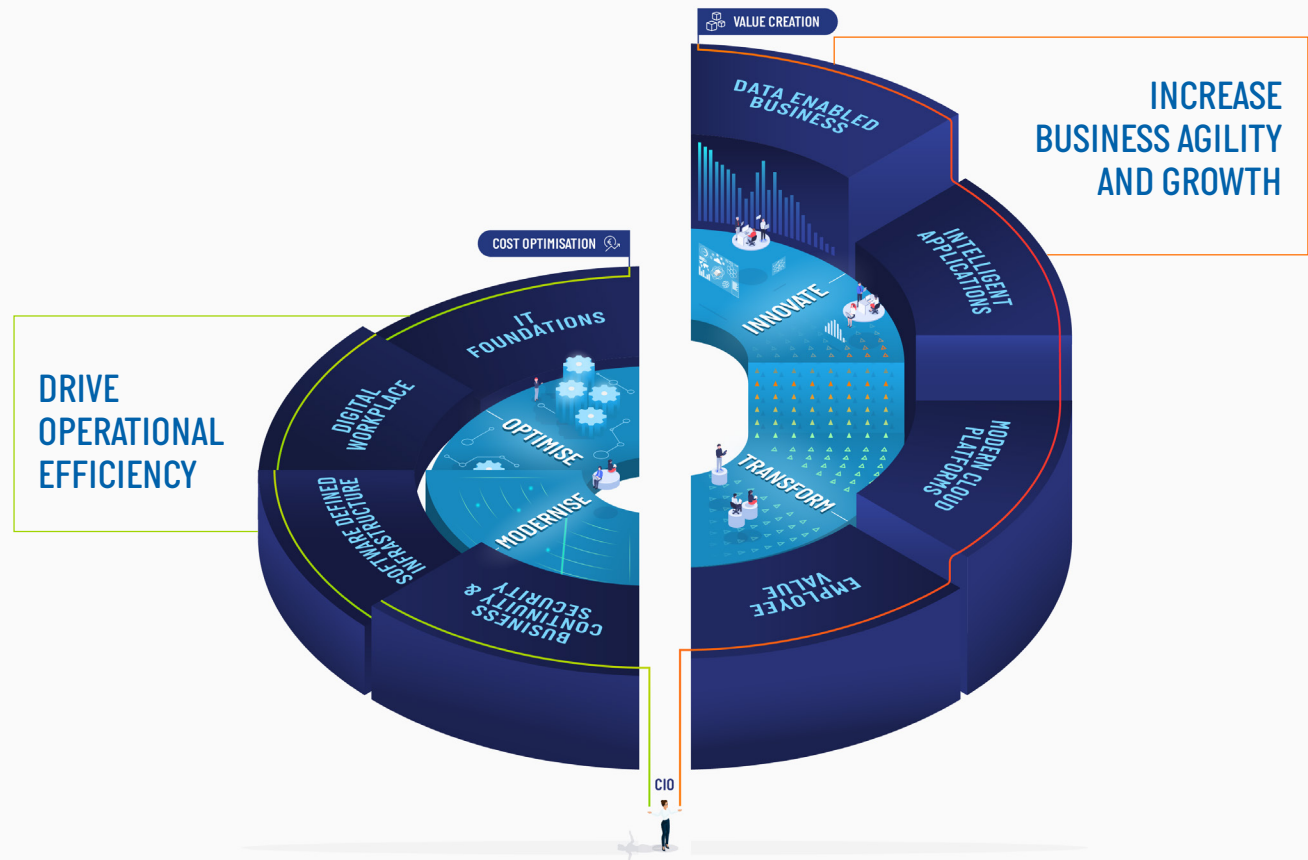
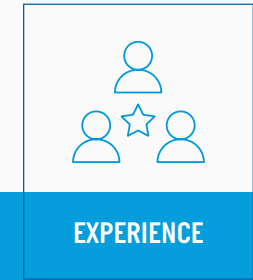
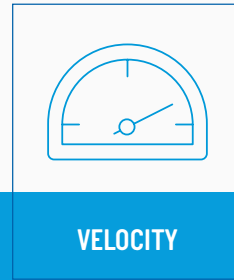
For more information and to stay up-to-date with our AWS services and capability, head over to their vendor page on our website, which will give you much more detail and is the place where we will share everything we are up to.

[TAKE ME THERE](#)

# Summary

We hope that this document gives a glimpse into the work we've been doing over the past 6 months, and a perspective, albeit broad-brush of how we have been supporting our customers during this challenging time. Beyond the immediate situation, we continue to have an exciting strategy and outlook for the future.

We will continue to focus on the impacts of the **4 Mega Trends** that we see affecting our customers and the industry and continue to adapt in this most dynamic of industries. Our customers are, in the immediate term likely to be focussed on **Driving Operational Efficiency** as they wrestle with the challenges of Covid-19. But technology has the power not only to support business, but to enable it to grow and thrive, therefore we retain a close focus on our transformation and innovation agenda to help **Increase Business Agility and Growth** in whatever their future businesses and industries look like.



## Engage with us

One of our key objectives has been to continue to share the people, skills and thought leadership that we have, to provide better insight and guidance to our customers. These papers are part of that strategy. You can also engage with our industry thought leadership group on LinkedIn by clicking the image below and registering your interest.

CTO Talk is an area where you can discuss and collaborate with peers as well as the Computacenter team and take advantage of unique insights and perspectives that we don't publish elsewhere.



**CTO TALK UK**

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