smartCIO

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Hello and a very warm welcome to our third edition of smartCIO EMEA – the magazine for Chief Information Officers and other IT leaders from across the region.

Regular readers will know that our mission is to share the latest technology and leadership insights to help create and educate a community of current CIOs and those aspiring to move into the role.

We have a packed edition this quarter, with some great articles around a host of relevant topics for those working in IT.

As always, we kick things off with Martin Veitch, Editorial Director at IDG Connect who has some musings about 'the great workplace return' and how that impacts the CIO. Every company has a different approach, with some looking for a full return, some working on different hybrid working models, and some even saying that everyone can work from home forever! Whatever path organisations are taking, IT is critical to ensure these new ways of working.

We have some great interviews with companies across many different sectors, discussing their own digital transformation and acceleration journeys. Where better to learn more about fast-paced change than from the world of Formula 1! Chris Roberts, Head of IT Infrastructure, talks about the huge technological and logistical challenges that faced the sport over the last 18 months and the role of technology in managing such seismic change.

We then shift gears (see what I did there…) and go over to the legal world to learn how Webber Wentzel, one of South Africa's 'big five' firms, and its CTO/CDO Warren Hero embraced the challenges of the pandemic to drive through new digital initiatives.

Kathryn Guarini, CIO of IBM also features, discussing topics such as IBM's use of IT to enhance employee experience, how the company scales value through AI and hybrid cloud, and how she and her organisation are delivering the future of IT at IBM.

There are several other great articles! Have a read.

Our aim for smartCIO EMEA is that it provides you with insight, opinion and discussion around the key leadership, business and technology topics that are relevant to you and your role in modern business.

We look forward to you joining the conversation. Please give us feedback, suggest new ideas and offer your own expertise and insight. We can't wait to hear from you.

Grant Currie
Editor-in-Chief

Contents at a glance

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Going back: Some ways to think about the great return

By **Martin Veitch**,
Editorial Director, IDG Connect

So, how's the commute going?

By now, you're probably feeling your way back and adapting to The New Abnormal, searching for some sort of routine or structure to your adapted working life. At the polar extremes of our options we have the Goldman Sachs ('get back now') and Twitter ('let it all hang out') but most of us seem comfortable with something through the middle. Having spoken to dozens of CIOs about this, my strong feeling is to concur with the consensus wisdom that says there's no going back:

there's scant demand or desire to return to a punch-the-clock world of office presenteeism. Quite the opposite: many of us now look back in anger at the century-long obsession with being made miserable by horrendous journeys in and out of cities then being suboptimal in performance by dint of corporate addiction with locating us in shiny blocks through mandatory hours. Goodbye, and good riddance, to all that.

But enough of the past: what's the best way forward?

Tactics and tinkering

IT leaders have had a particularly unusual year and a half. Having overall responsibility for the datacentre led to a certain amount of having to show up in the workplace, even at the peak of the pandemic. On the other hand, ICT was also the reason many companies reliant on information workers escaped relatively unscathed from various lockdowns. One small consolation of the time of COVID-19 is that CIOs and other ITers have moved up a notch or two in terms of recognition of their value.

Now, you've maybe been asked to consider working a part week in the office, even if that offer has fluctuated with the impacts of virus variants. So far there's a wide range of approaches. Some are talking about the 2-1-2 model with two specified days in the office, one floating day and two out of office. There are as many variations on this theme as football tactical formations but they all add up to something similar. That is, a desire to make people effective wherever they are via a combination of in-person office appearances and working from home or elsewhere at other times.

Stay-at-home orders demanded a screeching U-turn as the road ran out at a sharp precipice. Now we're at a crossroads. In the US, we've seen tech giants such as Apple and Facebook forced to partially reverse out of their various back-to-office plans. But when the virus finally retreats, as it appears to be doing here in most of western Europe, we need a plan. But it's not the usual 'even a bad plan is better than no plan', 'stick to your guns' sort of plan. This is a time for making plans then course-correcting on a regular basis. We need listening strategies; we need Agile rather than waterfall projects.

So, companies need to interview staff, gauge their feelings and then put in place structures that are good for their people and good for the organisation. Inevitably, noses will be put out of joint. You probably can't work from home all of the time if your role is closely tied to ideation and collaboration, for example. But this too shall pass.

We will need to make space but also to impose boundaries. An example from before COVID-19: a large US software house with a big office in central London offered a certain amount of flexibility with the result that Fridays made office attendance very diluted. Unfortunately, this was the very day of the week often set aside for regular 'town hall' meetings where senior executives from HQ would visit to whip up spirit and imbue esprit de corps… and wouldn't stand for a spartan audience. "It was embarrassing to see a board member addressing maybe 50 people in an office designed for 500," one staffer recalled.

We live at a time of more liberal leanings about what it is to work than ever before and we're bombarded by the modern cliché that work is something you do, not somewhere you go. But sometimes, being there is important. Onboarding and the education of younger workers is bound intimately with the rhythms and accidents of workplaces. Accidental learning takes place almost by osmosis: conversations that take place in the lift or by the water cooler, observing a top salesperson closing a sale or becoming enthused by a motivational team speech or a kind word. Zoom and Teams have no features that replicate this. The gorgeous word 'serendipity' was coined by the Gothic novelist Horace Walpole but it serves centuries later to encapsulate the importance of people coming together: those micro-interactions change careers and lives.

Tips and tricks

So, what to do? A major concern for CIOs should be considering how best to equip workers for the long haul of working from home. So far most have survived despite cobbled together solutions: consumer-grade broadband, improvised forms of collaboration, unsanctioned software and barely protected endpoints or network traffic. That can't be allowed to continue and it should be a priority for CIOs to ensure high levels of broadband performance, security, data governance and training are provided to guard against the vagaries of Shadow IT. Some CFOs will baulk at the extra cost, but it will be trivial compared to the savings from inevitable building closures.

Companies will also need to plan how they manage onboarding, ensuring that new employees become embedded in the culture and can stay virtually attached when they become more comfortable and feel part of a group with clear goals and ways of doing things. There's an emerging consensus here too and it is initially surprising. The CIO of an advertising company recently told me about her vision of 'the office for fun', insisting that the old workplaces will become centres for meeting, networking and sharing knowledge.

"Offices will be like coffee houses that become wine bars at the end of the day," she said. "You will go there to meet colleagues, collaborate, brainstorm and chat. We need to get over this idea of formal meetings and spend more time thinking and getting people to talk and listen. The office will be the venue for that because offices tend to be central and suitable for creating adaptable workspaces. We'll need to make them more enjoyable places and we will increase our budget so we have the best coffee, the best AV equipment and great wine and food. We need the office to be a destination as it is in Silicon Valley: a place you want to show your family and friends."
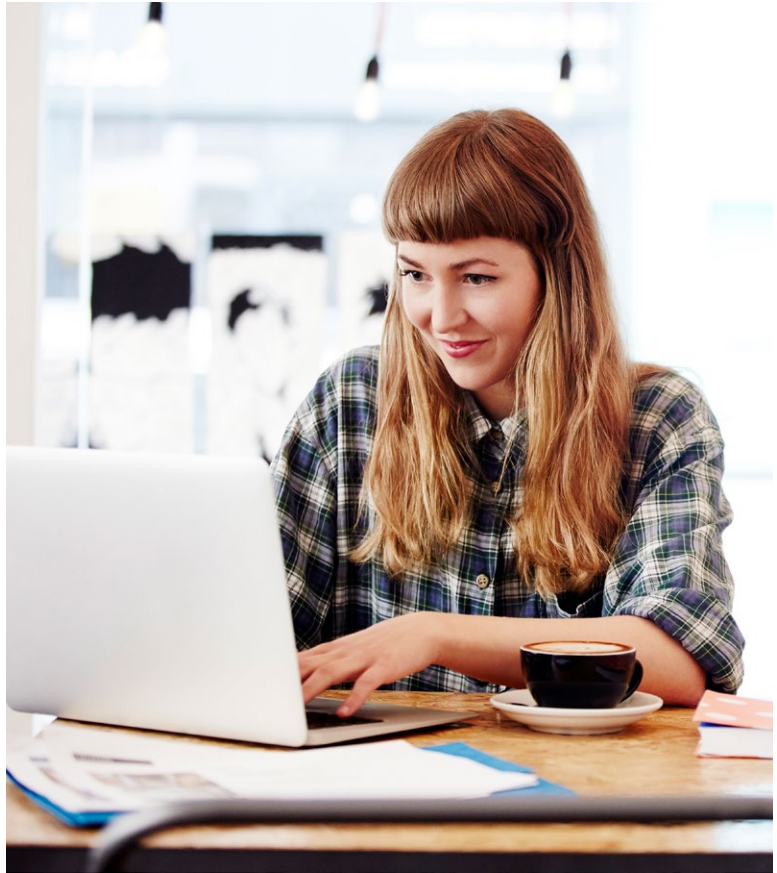
But for another CIO, the office will play a more sober role.

"You can't easily sign off on contracts worth hundreds of thousands of dollars or millions without visceral interaction. To be viewed as a partner, you'll need in-person meetings. It's primal: you want to see the whites of the eyes."

Which brings us to another hot potato: business travel. The European sales VP of an enterprise software company says that "people like me can't wait to go back to that. I used to spend more than half my time on the road and I need to do that because that's how you energise sales teams. But sustainability is taken very seriously now and as a company we probably need to spend a lot less time in the air."

So, take time to audit your people, listen to feedback and be ready to eat your words. We're going back in, but we can't know to what.

Companies will also need to plan how they manage onboarding, ensuring that new employees become embedded in the culture and can stay virtually attached when they become more comfortable and feel part of a group with clear goals and ways of doing things.

Formula 1 goes full throttle on digital acceleration

Regional Partner of Formula 1®

The COVID-19 pandemic has tested many businesses to the fullest. With six new races to schedule across 16 new global venues, Formula 1 has had to find technology and logistical solutions on a scale that is unimaginable for many. In this article, I caught up with Chris Roberts, Head of IT Infrastructure at Formula 1 to learn more about the organisation's digital journey both on and off the track.

Can we start by getting a bit of background on you, Chris and how the IT function at F1 has developed?

I joined Formula 1 back in 1999, and it was one of those jobs you come into and think, 'Right. I'll come here and I'll do a few years,' but then you join and get a little bit hooked. At F1, change is just part of the engine, and there is constant evolution here. I talk to my peers in similar organisations and there's a lot of keeping the lights on. It's quite different at Formula 1. It's

very much an innovation machine, and a real change animal, which has kept me busy.

Three and a bit years ago now, they merged what were two separate IT departments – the race IT department, and the business IT department, and they had a very separate focus within the organisation. As the organisation grew, it actually became harder to administer these two separate silos. So the decision was made to merge them into one department, which totally made sense.

By **Steve Dunne**, EMEA Staff Writer

Alongside the challenges of the COVID-19 pandemic, you had 17 races, in 11 locations, including five new venues, to deal with. From a tech perspective, how do you start to think about that?

From my perspective, if I put on a purely IT hat, COVID-19 was a time where we absolutely pulled it all together. Everybody across the company did massive, massive amounts of work. But we used COVID-19 as an opportunity to accelerate what was a three-, four-year plan, and we squashed it into about eight weeks. We took our full broadcast infrastructure and we cut about 80% of it off and decided to keep it all in our technical facility in Biggin Hill.

We do the acquisition part of the racing at the circuit, and then the production piece is done back in the UK now. I guess it was about eight weeks of work which should have taken about three years to design. COVID-19 gave us the opportunity to take that risk, and actually, it was a springboard where we thought, 'We need to do something. Let's just ramp up'. The plan was already in the back pocket, so we kind of knew what we wanted to do. We just really accelerated that.

We're talking about massive infrastructure changes with regards to separating something that had been glued together for the last 20 years, pulling that apart, and actually separating it from different continents. Without the connectivity piece, we are absolutely dead in the water, so we put a lot of work and a lot of effort into getting the fastest network that we can with the lowest possible latency.

F1 and innovation have gone hand-in-hand throughout the history of the sport, but which technologies are you prioritising as you kind of look to keep up with digital innovation or keep pushing things forward?

Off the track, it's all about customer focus, so customer data platforms are very high on my list, and they're certainly on the radar. We're looking at a number of programmes right now as we review our whole martech stack. What we want to be able to do is we want to be able to give Formula 1 fans the content they want, and as much of it as they want to consume. Without being too intrusive, we'd like to understand who our customers are better so that we can service them better. It's a big area for us at the minute to ensure that what we're putting out there is the right content that people are searching for and looking for. I would say that's probably the biggest priority at the minute and it is all around our martech stack.

Cyber security is obviously a big priority in F1, but from a corporate perspective, can you tell us about some of the initiatives you have been working on?

When Liberty took over Formula 1, they came in with a very strong agenda. Bernie [Ecclestone] did a really good job at making handshakes and deals. However, Liberty's view was, 'We haven't got a marketing department. We need a commercial department. We need all these elements that you would consider natural in many businesses.' So they set about spinning up all these new departments.

Sponsorship's a very good example. It's very new for Formula 1. These groups went away and started working on all of these projects. People think of Formula 1 as a massive global brand, but actually, we're 500 people. And sometimes people assume there are thousands of us, but actually, we have to utilise a lot of third parties and a lot of partners to achieve what we want to achieve. So the cyber or the information security programme was spun up to put a bit of a net around some of these third parties to help us work with those third parties that we entrust with some of our corporate data and things like that.

"We want to be able to give Formula 1 fans the content they want, and as much of it as they want to consume."

People and awareness are always at the core of cyber security, particularly during COVID-19, where people have been working from home. They might get a little sloppy, use a personal device or do something that isn't quite in line with security requirements. We've certainly done a lot over the last 12 months to ensure the security of the data and making sure we know the value of that data.

Given the focus on ESG right now, I know your 'Race to Zero' initiative has been working towards reducing F1's carbon footprint. Can you tell us about that?

Cloud has certainly had a big impact on the way we work. The ability to spin up and actually shut down services much faster where we didn't have to make a capital investment on hardware that's just going to sit there whirring away has been quite a big game-changer. Our motorsport team have been doing a massive CFD project which utilises the cloud. That would have required a whole comms room in itself if we decided to build out that infrastructure internally. But we can spin it up, they can do the work on it, and if they've finished, we can turn it off, saving us who knows how much.

I mentioned earlier that we now do remote production, so we're only shipping 20% of what we used to with regards to our broadcast facility. It's allowed us to reduce the headcount that travels and reduce the amount of freight that gets sent around the place. And even on top of that, the lifetime of the hardware has become extended because it's not being shaken and rattled or it doesn't get frozen on the plane and then sweat at 50 degrees on an airport runway for three hours. We found the longevity of the kit which used to be about three years and then thrown them in the bin, has now been considerably extended. I hadn't predicted this, but it's quite a nice fringe benefit.

As a technology leader, what have you learned from the pandemic that you can take forward into the future?

Flexibility has been one of the keywords from this whole pandemic. Being able to support 500 people from home, especially during the first lockdown when nobody could move anyway, was really challenging, but we did it.

We are quite fortunate as an organisation in that we were ahead of the curve anyway. Because of the amount of people that travel with their job, 90% of the company works from laptops. So there wasn't a massive build. I was fortunate enough at the start, when things started to unfold in China, I thought, 'Well, this looks like it might come our way,' and I managed to get ahead of the game in as much as I ordered 100 laptop devices and started getting them spun up before the supply lines ran dry, which happens pretty quickly.

The key learning for me was to get ahead of the game, and be as flexible as humanly possible because user requirements were many and varied. Also, having comms into the building. We were already on it with regards to VPNs, but having the right comms, the right equipment and being able to spin those services up fairly quickly were all key to our success.

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Chris Roberts, Head of IT Infrastructure, Formula 1

Webber Wentzel: Driving innovation for South Africa's legal sector

The COVID-19 pandemic did not mean an end to business as usual for Webber Wentzel – one of South Africa's 'big five' firms. In this article, Warren Hero, CTO and CDO at the company, spoke to me about how Webber Wentzel used technology to thrive in the pandemic and the road ahead for the organisation. This article is taken from an episode of the Workday Podcast.

By **Steve Dunne**, EMEA Staff Writer

Could you start by giving us a bit of an overview of Webber Wentzel and your role within the company?

I've been in technology all my working life, primarily in financial services. I was with Microsoft earlier in my career, and joined Webber Wentzel, where my role is Chief Information Officer and Chief Digital Officer. Webber Wentzel is a premium full-service law firm, and our focus is around being able to deal with legal matters for our clients, whether it's in corporate or commercial, in a dispute resolution context, from a litigation point of view, or in mergers and acquisitions. We position ourselves as the 'dealmakers of the

decade,' and that's down to the fact we have the most incredible lawyers. When it comes to applying both the legal muscle and the technology muscle to help our clients solve difficult issues, that's what we're really good at.

Tell me a little bit about how your career journey has evolved and how you've evolved to wear both the CIO and CDO hats?

My story started in financial services, and working to support the digital channels into the call centres. I was really fortunate to launch some of the first internet and telephone banking capabilities in the country. As someone once said, "If you don't have a

seat at the table, bring a fold-up chair." And so from an executive point of view, I got a chair at the table and then started doing some really deep work around customer experience, customer satisfaction and loyalty – all linked back to the employee experience. The fact remains that the biggest indicator of an engaged or loyal customer and client is an engaged employee. And being able to explore that was one of the seminal lessons.

Another key part of my development was at Microsoft. Often when you work for an organisation, you only have the opportunity to understand your own organisation's journey. But in my role as Chief Technology Officer at Microsoft, I was able to, on at least almost 44 different occasions, go through this digital transformation journey with a number of our clients across various sectors. It helps you develop a mental picture, because you get an understanding of what works and what doesn't work. How do things look in a year's time? What does the world look like in three years' time? Can we even look at 15 years ahead?

During the pandemic Webber Wentzel has been using technology to resolve disputes digitally. Can you talk to us a bit about how digital has played a key part in keeping your business moving?

For me, this is all about trust. The internal trust of our employees and then the trust of our clients. When we went into a hard lockdown in March last year, we had been planning around employee mobility rather than the mobility of the technology. We tied our mobility programme to ensuring our employees and teams could work from anywhere. So when the pandemic hit, the only thing we really had to do on some of our admin teams was to give them devices.

This made a big difference because, in the South African context, we still use the billable hour. So, when our teams then had to switch to remote working, they could be as productive as they were in the offices, and that was one of the big wins. Our clients want to be able to collaborate right throughout the process and not just at the very end. That's where technology has really empowered us during the lockdown. We're able to involve the client after the briefing process and identify which aspects of the matter deserve emphasis. We started showing teams the benefit of the data that came from these discussions. They could be something like a change in the client's tone or a facial expression. These are really important triggers we have to react to.

> **"We tied our mobility programme to ensuring our employees and teams could work from anywhere. So when the pandemic hit, the only thing we really had to do on some of our admin teams was to give them devices."**

How do you view cybersecurity as a whole? And what sort of work have you been doing in that area internally and externally for clients?

The starting point for me is to understand that the ability to sense becomes one of the most important things. Understanding the signal is key because I think most traditional cybersecurity approaches are about lists. But attackers use graphs because they understand how to traverse your organisation by using graphs. And so part of what we do is to understand our own graphs. We then have a visibility of the graph and understand how somebody traverses the organisation – and so we can create behavioural blueprints internally.

Because we have had such a focus on migrating all our core systems to the cloud, part of the benefit it generates is that we have the core system and, let's say, our document management system in the cloud. This means we have a behavioural footprint on the user. When there's a variation to that behavioural footprint, even though the person might be using the same credentials, we can start picking it up.

In real time, we're constantly enriching that identity graph for the individual. And so when there's a geographic disparity between where the person logs on and what happens, that concern immediately begins. The next aspect is around the devices. So a device has health, and as long as the health is at the appropriate level, the individual can join whatever resources they need to. But from a conditional access point of view, and because there are automated playbooks in the background, our incident response team doesn't have to come to an incident and think about which playbook to kick off.

Of course the last aspect that we think about is data. Our law firm's brand promise is around ensuring client confidentiality and client privilege. And so the way we think about the curation of the data, the way we then employ

multi-factor authentication, and the way we think about using data loss prevention factor into the way we manage devices. All devices are managed. If your device isn't managed, then you can't have client data on it. And for us, because of the fact that we've become so clear about our information security management system, we're now in the process of pursuing a third-party certification: ISO 27001, 27002.

Could you tell me a bit about the Webber Wentzel legal platform? What is it and what's the role of technology in bringing it all together?

Our firm is all about intellectual property: being able to bring together a person's academic knowledge, a lawyer's academic knowledge and their behavioural knowledge. The behavioural element is something we get from our document management system. We knew the first point of leverage was to be able to get an accurate view of our people. Our first platform in the cloud was Workday because we needed to take advantage of the innovation premium and because we had six different applications for HR. Now we have one, and we've reduced the cost of management for all these platforms. Therefore, our teams can focus on helping the HR function to put them in a position to then essentially initiate recruitment faster. This impacts our graduate recruitment process because we take attorneys straight out of university, and we put them through a process. And in two years' time, they will join us as a bonafide legal associate. And we knew from a recruitment perspective, and from an induction perspective, it's one of the fundamental things we have to get right.

And of course, coupled with that is diversity and inclusion because while we have a large black population, the representation in the workforce is quite small. And so by understanding our own employment equity, we were then able to set targets for

"Our firm is all about intellectual property: being able to bring together a person's academic knowledge, a lawyer's academic knowledge and their behavioural knowledge."

ourselves and put programmes in place to ensure the representation of individuals that come out of university.

The next part of our platform is our client platform and the ability to bring our client insights. And once again, as a client briefs us on a matter, we no longer have to depend on a partner to know that somebody has a specific body of knowledge. We go to Workday. We understand that they have this body of knowledge, and we can then match the client's need to the internal skill. Then there's finance and operations. We're not Mother Teresa. We're in business to make profit, but to do so in a responsible and a sustainable manner. We needed the ability for our business to understand financial discipline and to pre-empt cash flow issues – which was probably one of the biggest opportunities we saw through COVID-19. We knew we had to get a real-time understanding of our cash flow. The last portion is an innovation platform. A mentor of mine always said there's this juncture between using the axe and sharpening the axe. And the ability to talk to our organisation about when to use the axe and when to sharpen the axe to ensure we can balance exploration and exploitation. This is one of the things we see playing out quite well into the way we do innovation.

Can you tell us a little bit about your approach to data management and how you get the most value from it?

It's not a technology issue, it's an organisational issue. And I think that's one of the first realisations. The second aspect we approach is we have clearly identified system owners, and that system owner is a line of business person that drives the capability that needs to be developed. So when we think about our business model, we think about the client. We think about what the capabilities are in terms of the value proposition that we need to develop. Then we think specifically about business capabilities.

Finally, the thing that happens when we do the right things is that the financial, economic outcomes are produced out of understanding those different components of the business model. So we knew we had to get really data driven, and we've developed the capability among a core of our staff to be able to understand data science, the application of data science, dashboards, user interface and the way user interfaces work. Because when I show you a piece of data and I don't bring the appropriate context to it, the ability to consume it decreases. It's this ability to go from the macro down to the micro, and then to be able to build up from that granularity back to the macro picture that's key.

"When we think about our business model, we think about the client. We think about what the capabilities are in terms of the value proposition that we need to develop. Then we think specifically about business capabilities."

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Warren Hero, CTO and CDO, Webber Wentzel

Inside the cloud:
From customer to CTO
with Workday's Clare Hickie

By **Subarna Ganguly,**
EMEA Staff Writer

The career evolution of a CTO is often a non-linear path, and Workday's Clare Hickie is no different. In this interview, she told me about her evolution from a Workday customer to the company's CTO for the EMEA region as well as her thoughts on the challenges facing IT leaders today.

Tell us about your career and how you moved from a Workday customer to the company's CTO, EMEA?

I worked my way up the ranks with an educational background of a double BSc degree behind me in Business Studies and Computer Studies from Brunel University. My early roles ranged from manning an IT Help Desk to various Project and Programme Manager positions and Service Director/Senior Director roles. My introduction to Workday was in 2012 during my 15-year tenure at GlaxoSmithKline (GSK) when Workday was selected as the HCM and US Payroll solution of choice. I led the global technical deployment over three years and delivered to approximately 120,000 employees across 130 countries.

From there I went on to be the Global Head of ITHR. In June 2018, I joined Workday and today I am the CTO - EMEA, my previous role was the Regional CIO, EMEA & APJ. During my time at GSK, I grew increasingly passionate about transformation and all it can deliver to organisations. I also believe in the importance of a strong culture. The Workday employee-first culture is based on respect and equity for all, that stood out to me and was a big part of my decision to join the company.

Businesses are experiencing significant change today, and the CIO role is certainly no stranger to that. How do you see the CIO evolving and how do they arm themselves to be successful?

The CIO role is evolving from traditionally keeping the lights on to now leading from the front by being even more strategic. CIOs today are expected to have a much deeper understanding of the business and to find ways to integrate technology into strategy and operations. That means the CIO is becoming a differentiator for the business and fuelling innovation at a greater pace – this requires curiosity and continuous learning. Some areas of the business have relied on technology for many years, e.g., finance, HR, and now that needs to be deepened. Finding new ways to collaborate is also critical to success. Piloting new technologies and use cases to help their businesses innovate and demonstrate digital transformation success on a smaller scale is a great example of this.

Next of course is agility – the CIO needs to be able to respond and adapt quickly and this starts with an agile architecture to enable the organisation on both a large and small scale. Agility is no longer a nice to have, but must be a part of every company's operating plan and strategy.

Finally, I would say resiliency is a key success factor and although this is not news to the CIO, the recent crisis has underscored the importance of scenario planning and mapping out dependencies to understand the vulnerabilities of the business and plan accordingly.

What are the elements of a good relationship between the CIO and other business leaders? How should those roles work together and how is that changing?

As the saying goes, 'It takes a village to raise a child'. I have seen, both internally and externally, an amazing demonstration of collaboration between the CIO and other business leaders in order to succeed. The most recent demonstration was obviously during the pandemic where everyone within Workday came together to iteratively plan and execute as the crisis unfolded. This could not have been possible without strong and trusting relationships across the organisation.

Many organisations are emerging stronger than ever, as the last year has proven that silos slow things down and isolating the CIO can lead to a failed plan. Collaboration needs to be maintained to deliver on the strategy, agenda and performance expectations of every organisation.

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The recent crisis has underscored the importance of scenario planning and mapping out dependencies to understand the vulnerabilities of the business and plan accordingly.

Clare Hickie
CTO - EMEA, Workday

As we move into the post-pandemic era, are businesses moving fast enough to deploy the technology they need to thrive in this new era?

What we are seeing is that organisations who invested in cloud technology prior to the pandemic are already down the path of long-term planning for greater agility and resilience. They coped better than those who are predominantly focused on running existing operations and are still invested in fragile infrastructure.

Scaling, performance, change and supporting a shift to flexible working is not easy in a brittle, on premise architecture. Businesses today need reliable systems that can scale to meet their needs, regardless of how the world or their workforces change. No matter what, business leaders, workers, and customers depend on a technology foundation that 'just works'.

What's more, as businesses look to accelerate their digital efforts, cloud business continuity at scale is now a requirement. As more and more business is conducted digitally, the need for robust business continuity from IT systems is business-critical. It's never too late to push the button on digital, but now is definitely a good time to do it.

We hear a lot about organisational agility, but what advice would you give IT leaders on areas to focus on when it comes to being more agile?

I'd start with embracing change at speed. IT Leaders must embrace change as the one constant and technology must be built with agility at its core. This is why cloud-native solutions are designed to continuously adapt. Speed is also critical to agility. IT Leaders must respond in minutes, hours and days, not weeks or months, if they are to support the business effectively.

Next, I would call out focus and flexibility. On the surface, this may seem at odds with the speed/change concept, but effective agile IT organisations must be focused and have a solid, well understood plan. IT Leaders should maintain the flexibility to adjust the plan, or adjust how to deliver against the plan, but each step they take should move towards their goal(s).

I don't think it's any surprise that I would advise CIOs on the importance of being data driven. Good data can enable rapid change, and arms business leaders with the information needed to make real-time decisions with confidence.

Finally, I know you're an avid reader, so what book would you recommend all IT leaders put on their reading lists?

I recently read 'The Sentient Enterprise' by Oliver Ratzesberger and Mohanbir Sawhney after being recommended it by a colleague. In this book the authors Oliver and Mohan share their views on the data challenges and common issues that organisations face. They introduce the methodology and foundational qualities they developed so that organisations can leverage data and analytics to win over their competition, and succeed in today's data-driven world. This book will shift your mindset and sense of urgency in addressing the complex nature of data.

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What we are seeing is that organisations who invested in cloud technology prior to the pandemic are already down the path of long-term planning for greater agility and resilience.

Clare Hickie
CTO - EMEA, Workday

Extending and integrating your IT platform

How do you build an enterprise agile enough to face the next set of opportunities for your organisation given the challenges of the past 18 months? IBM's CIO, Kathryn Guarini, recently addressed this at our Workday Navigator Series event, and I've shared a number of highlights from her talk.

By **Christina Johnson**,
EMEA Staff Writer

Guarini began by putting IBM's own challenges in perspective, given the company's size and complexity. Fifteen years ago, the company had a CIO or IT leader for each business function or geography. Today, a single global CIO drives efficiency and value for IBM's more than 380,000 users worldwide in 175 countries.

In that context, she focused on three main points: how IBM uses IT to enhance employee experience, how the company scales value through AI and hybrid cloud, and how she and her organisation are delivering the future of IT at IBM.

147% Companies with highly-engaged workers outperform competitors by 147% in earnings per share.
Source: Gallup

4x Organisations that invest in employee experience are 4 times more profitable than those that don't.
Source: KPMG

3x Top performers in employee experience report 3x the ROA and 2x the ROS of organisations evaluated poorly.
Source: IBM / Workhuman

Kathryn Guarini, CIO, IBM

Enhancing employee experience

Companies with highly engaged workers outperform competitors by 147% in earnings per share (source: Gallup), and organisations that invest in employee experience are four times more profitable than those that don't (source: KPMG). Investment pays dividends – not only in engagement and retention, but in business success across many metrics, according to Guarini.

She noted that IBM has taken this message to heart, energising employees by giving them the tools and technology needed to unleash their creative talents and collaborative spirit. The company has made sure to monitor and improve work experiences, relying on a set of key metrics that measure what matters – metrics that correlate with employee engagement, productivity and team effectiveness. Guarini and her team set aggressive targets, regularly review progress and take actions to address issues and enhance value.

In terms of tools and task effectiveness, Guarini pointed out that every minute spent struggling with an IT system is a minute not spent delivering value for IBM and its

clients. "We take a data-driven approach at IBM, and we've invested in research to understand user goals and pain points and to identify opportunities to reduce friction and improve overall experience," she said.

Guarini's organisation creates dashboards that show the net promoter score, ease of use, and goal completion rates of different IT tools and services. The team has a continuous methodology for tracking progress and updates, identifying anomalies and taking action to close any gaps.

The process of continuous measurement also allows IBM to understand how changes in process, policy or even world events impact employee behaviours. For instance, in response to the COVID-19 pandemic, IBM sent the majority of its employees home and asked them to work virtually. "We saw that employee communications rapidly shifted – with less use of email and telephony, and greater use of video conferencing and real-time messaging," Guarini said.

This reflects how the employee base is engaging and how people are collaborating and innovating. As IBM starts to move to a hybrid workforce, Guarini said she will continue to monitor the ways that help them to be the most productive.

The process of continuous measurement also allows IBM to understand how changes in process, policy or even world events impact employee behaviours.

Scaling with AI and hybrid cloud

AI is critical for business agility, resilience and growth. 2020 proved AI isn't just a priority, it's a necessity. AI allows businesses to respond to market changes, fuels process automation and drives digital transformation.

At the same time, Guarini pointed out the hybrid cloud is the foundation for the cognitive enterprise. It provides the speed, scale, security and simplicity necessary to fuel innovation and business growth. Hybrid cloud offers a unified experience with end-to-end security and observability, harnessing the power of the open community, she said.

Hybrid cloud allows IBM to take the best of public and private cloud solutions, connected in a seamless way. "We get more efficient application development and maintenance, higher deployment frequency, improved infrastructure efficiency, and more robust security," Guarini said. "Combining the hybrid cloud platform with AI solutions and services allows us to scale business value."

Delivering the future of IT

Guarini noted the future of IT is AI-enabled intelligent workflows built on the hybrid cloud with exceptional user experience, unprecedented responsiveness, near-limitless scale, and robust cybersecurity. "We're building and deploying technologies that bring us closer to this vision," she added.

Improving IT support with AI

"We have a traditional IT help desk, but with the size and scale of our organisation and the complexity of the IT stack, we wanted to use AI to personalise and automate the experience," she said. Guarini described how IBM has integrated Watson into its IT support solution to provide voice response, and if needed it routes calls to an advisor. It also supports IBMers on 125 IT topics via chat, helps users waiting in a queue for an advisor, and guides users to the most relevant self-help content.

As a result, IBM has seen a +8.3 NPS improvement, a 70% reduction in wrong desk tickets, and over one million Watson-aided searches.

A safer and smarter return to the workplace

Guarini and her organisation have supported virtual work for well over a year, but as the situation improves they're eager to invite employees back into workplaces. "We needed a solution to do this in a safe and smart way," she said. "We've deployed a TRIRIGA-powered application that our employees can use on mobile or desktop for global space reservations and workplace service requests all over the globe. This has led to improved employee productivity and optimised use of space."

An integrated HR experience extended with AI

The CIO's team has improved employee experience powered by Workday and integrated with Watson, badging, and other digital services. This has allowed IBM IT to provide a unified experience for employees worldwide, automate processes and provide actionable insights enabled by data.

She summed up her talk by saying that IBM recognises how important employee experience is and how it translates into business success: "Technology is a key enabler of this, and our IT allows our employees to spend time on things that provide the most value to the business."

Hybrid cloud allows IBM to take the best of public and private cloud solutions, connected in a seamless way.

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We take a data-driven approach at IBM, and we've invested in research to understand user goals and pain points and to identify opportunities to reduce friction and improve overall experience.

Kathryn Guarini, CIO, IBM

How to drive greater value by transforming your data foundation on the cloud

By **Shail Jain,** Lead, Cloud First – Data & AI, and **Vishal Talwar**, Cloud First, Sales, Solutions and Offerings, at Accenture

After having been a part of building several data analytics practices over the last two decades or helping technology and business executives grow their business and gain market share, we thought we knew how to maximise value from data. Yet, we continue to be awed by the new ways that cloud enables companies to transform their data foundations to extract even more value from their data. Take the example of one company who, by consolidating over 14 disparate legacy source systems into a scalable, cloud-native data foundation, built an enterprise people platform with cross-domain data that captures all aspects of employee hiring, training, day-to-day operations, wages and retention.

Everywhere we look these days, we see companies across all industries working to modernise their data foundations as this company did. And the top ticket to modernisation is the cloud.

Everywhere we look these days, we see companies across all industries working to modernise their data foundations... And the top ticket to modernisation is the cloud.
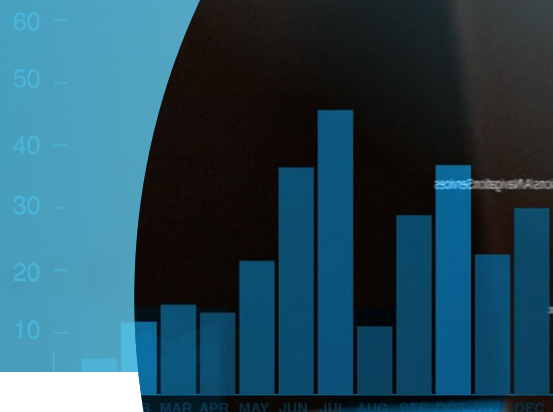
Why the cloud makes data more valuable

Today, data is generated everywhere. It comes from humans, machines, IoT devices, edge systems – here on earth and beyond, in space. All that data adds up. Today, we are generating a staggering 2.5 quintillion bytes of data daily.

But all that data is worthless unless it is accessible and broadly applicable – its value comes from use. The challenge is to not only handle the sheer volume and variety of data that arrives from many disparate sources but to realise its full value. That only can be achieved through a truly modern data foundation on the cloud. Cloud is the only place where data gains the necessary scale and agility to be accessible, applicable and ultimately valuable.

Cloud-based architectures and platforms enable all types of data to come together in one place as a powerful collective resource for the entire enterprise. On the cloud, you can ingest huge amounts of data in real time, get all that data to work together seamlessly, and then employ analytics, AI and automation to adapt the data for all kinds of use cases.

Consider the company we mentioned earlier. Inundated with data, including ingesting half a billion data records from 30,000-plus locations on a daily basis, the company needed a solution that could handle all that data without requiring custom coding to generate reports. By building a metadata-driven framework using native Spark, it not only manages the daily data deluge into robust quality reporting, but it also helps connect the dots on employee hiring, training and satisfaction, stores' performance metrics, and the impact of employee turnover on business profit and loss.

The top ticket to modernisation is cloud.

What constitutes a modern data foundation?

Fundamentally, a data foundation consists of frameworks, capabilities, tools and services that efficiently and effectively store, process, manage and serve data. Through modernising, you can enhance your data foundation to achieve three key characteristics: modern data engineering, AI-assisted data governance and data democratisation. These characteristics are key to blending data from different sources together in real-time, building agile reporting, and leveraging analytics and AI to derive valuable insights and deliver meaningful business outcomes.

On the cloud, you can ingest huge amounts of data in real time, get all that data to work together seamlessly, and then employ analytics, AI and automation to adapt the data for all kinds of use cases.

Transforming your data foundation on the cloud is a multifaceted and multistage process. But it is one of the most worthwhile investments in your business that you can make.

Modernising your data foundation:

1. Set the stage

It begins with asking and answering the question: What data do you need and in what form to run and grow your business? This is the essential first step of understanding the baseline capabilities needed by your data foundation to deliver desired business outcomes. You then need to select the right cloud service provider that can deliver those capabilities based on both current and future objectives. Since not all aspects of a modern data foundation on the cloud can be developed at once, you will need to create a roadmap of which capabilities to develop immediately, and which others can be introduced over time. Aim for early wins while laying the groundwork for even greater value in the future.

2. Make the move (migrate and modernise)

There are two principal modernisation approaches to consider – business function/ use case or data product oriented. In either approach, we recommend using building automation and configuration tools for data ingestion and curation to accelerate your data transformation to cloud. AI/ML techniques can be leveraged to deal with the data engineering and data management challenges. It's important to build data catalogue and self-serve capabilities to democratise data and make it available to data 'citizens' for broader adoption.

3. Operate and optimise

Managing a modern cloud-based data foundation requires extensive standardisation and automation. And because change is a constant, especially with the cloud, continuous optimisation is also necessary. Moreover, ensuring data quality and trustworthiness, especially as the volume and diversity of data grows over time, is essential if data is to be fully used as valued capital across your enterprise. The cloud can be much more secure than a proprietary data centre, as long as your security teams have the skills and tools specific to your cloud platforms.

Transforming your data foundation on the cloud is a multifaceted and multistage process. But it is one of the most worthwhile investments in your business that you can make. On the cloud, your data will work harder, your people will work smarter, and your business will benefit in ways never imagined before. Let's talk about how we can help you accelerate your data foundation transformation to grow, innovate and generate sustainable value for your business.

Take five with Pete Schlampp: Taking advantage of inflection points

By Workday Staff Writers

We sit down with our leaders to learn more about what makes them tick and get their perspective on the industry – in five questions, give or take. Read what Pete Schlampp, Executive Vice President of Product Development, has to say about why he left medical school and the huge opportunity for finance software.

You could consider Pete Schlampp a serial 'builder' – he's built handfuls of products, three companies, dozens of teams and, in his spare time, he's pretty handy in the workshop with a metal lathe and a MIG welder. He has experience spanning startups and large enterprises, in the U.S. and abroad – which gives him the ability to spot disruption and get everyone on the same page about how to capitalise on it.

Joining through the Workday acquisition of Platfora in 2016, Pete quickly made his mark through the development of Workday Prism Analytics, which became the fastest-growing product in Workday history. He stepped into his role as Executive Vice President of Product Development in December 2019, leading the team and supporting Workday customers through a critical year marked by the pandemic, widespread recognition of social injustice, and political change.

Despite his 20-plus-year career, he wasn't always on the high-tech path. His desire to help people took him on a brief detour to medical school early on. But, as the internet age dawned, he saw an amazing opportunity to make a different sort of impact on people's lives. He packed up his car, left medical school

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Pete Schlampp
Executive Vice President of
Product Development, Workday
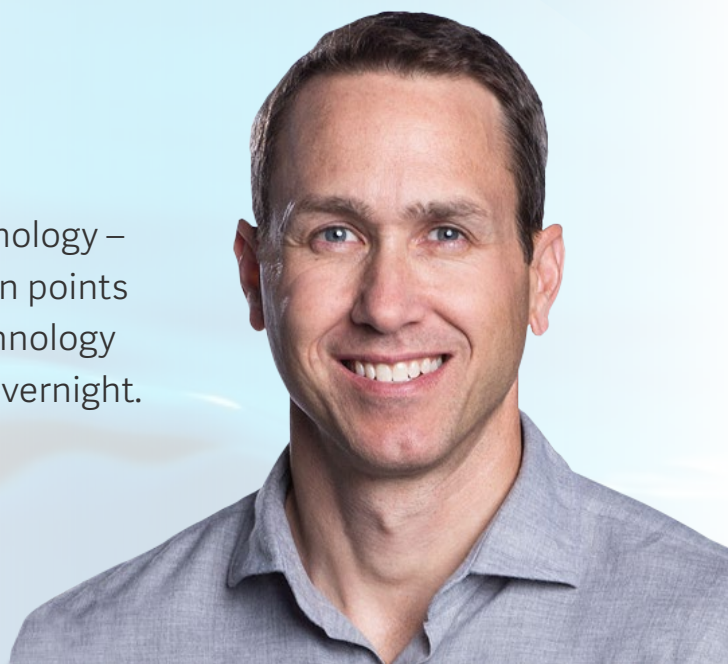
and came to Silicon Valley to build products. After having a few doors slammed in his face in his early interviews, he persisted in following his dream of building products that can change people's lives.

Now he's humbled by the opportunity to help people on the scale of Workday – used by 50 million workers around the world. We caught up with Pete to learn what he's building now, and what's next.

What's one particularly memorable product you've helped to create?

At one of my first startups, we created the first email security appliance – a spam blocker – that leveraged a reputation score to flag if IP addresses could be trusted. It came to market as the industry was at a breaking point with

email – 99 out of 100 emails were spam. CEOs were saying, 'I can't use email anymore!' This technology changed everything.

That's what I love about technology – you can look back at inflection points and see massive impact. Technology can make the world change overnight. This was one of those examples.

Your first year leading product development for Workday coincided with a worldwide pandemic and widespread recognition of social injustice issues. How did the environment shape product strategy?

Yes, it's a year that brought a lot of lessons and insights. We sent our entire workforce to work from home just days before our first major product release of 2020. We did everything

remotely for the first time with zero warning or prep time. That experience encapsulated what we faced the rest of the year. We had to move fast, make quick pivots and do things we've never done before.

First, we pivoted our strategy to accelerate innovations needed to meet customers' critical needs. We began offering packaged solutions that brought together facets of the Workday enterprise management cloud to solve timely challenges. Our Vaccine Management offering, which helps organisations plan, track and report vaccine status, was just one great example of a solution that went from concept to customers' hands in a matter of weeks. And, we've empowered our customers and partners to build their own unique applications – such as return to work apps – by opening up our platform with Workday Extend.

In addition, we're investing in getting more real-time sentiment data into Workday with the acquisition of Peakon, so our customers can better understand how their employees are feeling and support them in both a hybrid work environment and a world where diversity and inclusion are more important than ever.

Separately, but still related, we're working on completely redefining the employee experience with our technology – not just the experience within Workday, but also thinking about how to bring our functionality into wherever people get work done, such as apps like Microsoft Teams and Slack.

Lastly, we sought to provide our finance customers more flexible ways to transform their operations. We know moving a core financial management system – the bedrock of a business – is a massive project and it can come with risk. We began offering customers new ways of using Workday that immediately provided advantages of the cloud, without having to rip and replace their whole system. And, being cloud-based, our customers found that they were able to close their books remotely – even if that wasn't the original plan.

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That lesson, of being open to new experiences and working across teams and cultures to form something even better than you expected, is one that helps me today.

What are some of the technical disruptions that are influencing how you're thinking about building products?

There are many disruptive forces, but I always come back to data – it's the foundation of it all. There's so much opportunity to apply data science – in similar ways as the consumer tech world has – to enterprise data. Workday is the centre of gravity for two of the most critical pieces of data, people and finance, and our customers trust us with it – so much so that they've asked us to be the hub for their operational data as well. We can use that data, in trusted ways, to delight our customers and deliver value through greater automation, a better conversational user interface, enhanced decision making, and so much more. We're just scratching the surface.

What excites you about where Workday is headed?

We're seeing a disruption of financial software moving to the cloud – much like we did with HR when Workday got started – and a groundswell of IT support for end-to-end cloud strategies. We will look back in three to five years and say this was the moment when all large companies moved finance to the cloud. CFOs woke up on 1 April 2020 and said, 'we can't do this anymore'. There's a solution that will instantly solve their issues and it's in the cloud.

Catching inflection points – or disruptions – that's what excites me about our business today. We are well poised to lead this disruption, and we'd better not miss it.

If you could have dinner with someone from the past or present who would it be and why?

It's tough to choose. I'd have to say Gregg Popovich, the Head Coach and President of the National Basketball Association's San Antonio Spurs. Yes, he has led the Spurs to an impressive winning record, but it's not really about what he's done, but how he's done it. His players say he is

the type of coach to give direct feedback in the moment and then, 'love them to death.' That's what everyone wants from their leader – to know where they stand and feel fully backed and supported. I aspire to lead this way.

What would you say is a defining leadership experience you've had?

Earlier in my career, I was asked to go to a development site in Bangalore, India to influence the team to work more like a 'startup in Silicon Valley.' This was an incredibly misguided endeavour! I was at a large enterprise that had recently acquired the company where I was working. All my experience was from startups, which basically entailed a handful of people getting stuff done. It didn't exactly work in a site of thousands of people with a complex organisational structure.

I had to learn how to work cross-functionally and cross-culturally. I walked away with a huge appreciation for the team's culture, the way they did things. And together, we built some new ways of working that have stood the test of time. That lesson, of being open to new experiences and working across teams and cultures to form something even better than you expected, is one that helps me today.

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