



# **Bolder cloud adoption**

The view from the frontline: insider tips on accelerating transformation

A practical guide from Virtual Clarity

P Tech Pros.io

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Cloud computing has been one of the biggest game changers of the digital era, offering organisations the opportunity to be bolder and nimbler in their IT-enabled business ambitions. It has proved a great leveller too, offering companies of any size on-demand access to powerful computing capacity and the latest applications and data analytics capabilities.

It is no coincidence that Gartner has forecast that enterprise IT spending on cloud-based solutions and services will grow faster than traditional (non-cloud) IT offerings between 2019 and 2022, to the point that companies which do not actively promote cloud use as their first choice for IT delivery will begin to lose ground competitively.

Cloud IT access is no longer a 'nice to have': it is now a competitive imperative, not just in enabling greater operational dynamism, but in paving the way to the very latest digital technologies – from Al-based analytics to Internet of Things-based service innovation. IDC predicts that, worldwide, businesses will have spent close to \$1.2 trillion (£982 billion) on digital transformation in 2019 in pursuit of an 'edge' in the digital economy – whether that's advanced automation (eg of production lines or across broader supply chains), or new personalised, cross-channel customer experiences triggered by real-time data.

Yet for larger organisations, transitioning to the cloud still poses some considerable practical challenges. The prospect of migrating long-standing legacy infrastructures feels particularly onerous, along with continued considerations around data safeguarding and data portability.

So how are real businesses addressing these issues, so that they can more fully exploit all of the many benefits that cloud technology and services offers them?

Virtual Clarity has helped a wide range of global enterprise clients cross to the cloud over the last decade, accelerating their migration and successful ROI delivery. To complement this vast experience, and to delve deeper into the common issues faced by CIOs, CTOs and their C-suite peers, and the most effective strategies for overcoming them, we recently conducted in-depth interviews with senior IT professionals in some of the UK's biggest organisations about their cloud progress.

From these extensive discussions, we have distilled some common critical success factors along with a series of other powerful frontline insights into this eBook, to create a practical guide to the realities of cloud-based technology and process transformation.

Our heartfelt thanks go to the IT leaders who so willingly gave their time to discuss their experiences and conclusions. We hope that the combined findings will help others refine their strategies and move forward more confidently and purposefully with their own cloud ambitions.

# 2. Overcoming inertia:

### Legacy & compliance vs agile innovation



Unless an organisation is starting from scratch with a new IT infrastructure, the biggest obstacle to change is how to get from a complex traditional IT set-up to something that will run reliably, cohesively and securely in a modern cloud environment – whether a private or public cloud, or a hybrid solution combining private data centres and external hosting.

There are a couple of pertinent considerations here. One is the cost of not making the leap. This includes the hefty cost of ongoing ownership and maintenance of legacy infrastructure, and retaining legacy skills; and the cost of lost opportunity – for instance, because the business can't adapt quickly enough to the changing demands of the market, due to slow and cumbersome IT development cycles. The

other is that even a bold 'cloud first' strategy does not have to mean a wholesale shift to the cloud overnight. Rather, it is a statement of intent and a vision to work towards, step by step. A gradual migration allows for learning and adaptation along the way, so that by the time a company is ready to migrate its most complex and core IT systems to the cloud, it has amassed all the relevant knowhow.

<sup>&</sup>lt;sup>1</sup> Navigate private cloud, public cloud and the edge for infrastructures of the future, Smarter with Gartner, March 2019: <a href="https://www.gartner.com/smarterwithgartner/modernize-it-infrastructure-in-a-hybrid-world/">https://www.gartner.com/smarterwithgartner/modernize-it-infrastructure-in-a-hybrid-world/</a>

<sup>&</sup>lt;sup>2</sup> Businesses Will Spend Nearly \$1.2 Trillion on Digital Transformation This Year as They Seek an Edge in the Digital Economy, According to a New IDC Spending Guide, IDC, April 2019: <a href="https://www.idc.com/getdoc.jsp?containerId=prUS45027419">https://www.idc.com/getdoc.jsp?containerId=prUS45027419</a>

# Overcoming inertia: Legacy & compliance vs agile innovation

At Northern Trust Corporation, the strategy is 'cloud first' for any new IT-based developments, keeping these separate from complex internal systems. It uses new technologies or partners with financial technology (fintech) startups to create new applications, avoiding building anything into the existing architecture wherever possible. "There's nothing wrong with having massive mainframe architecture but it does make change relatively more complicated for a big firm than for a small firm," comments Anthony Stevens, the company's Global Head of Product Innovation for Corporate and Institutional Services.

Another approach may be to consolidate legacy back-office systems and link these to modern-looking apps and graphical interfaces, so the experience seems smoother and more efficient to customers and the wider market. This is one solution to blending the old and new worlds, perhaps as a stepping stone to fuller transformation and to show stakeholders what's possible. Yet if, behind the scenes, numerous 'workarounds' are doing all the application-connecting and data exchange, the IT estate is not truly streamlined to deliver maximum cost-efficiency gains, and further work and investment will be needed down the line.

Matters of control, and concerns about information security and compliance, have been longstanding barriers to more serious cloud adoption, but the greater threat of inertia and lost opportunity are conspiring to chip away at these issues, along with the growing sophistication of enterprise cloud solutions.

"Cloud providers have invested huge sums in making their environments secure, so, providing the applications are built right, we should be better protected from bad guys getting in. What data the cloud providers can see and what they can do with it will always be something to watch out for."

Atul Bhardwaj, Group CTO, MediaMarktSaturn

# Overcoming inertia: Legacy & compliance vs agile innovation

However it's important to ensure that measures are consistent from one end of the infrastructure/ service delivery to the other, to ensure there are no breaks or weak points. As a prominent digital transformation consultant has noted, "Once you start to connect everything, no element is stronger than the weakest link."

Compliance considerations will span companies' own IT and information governance parameters, as well as any external obligations. In heavily-regulated sectors such as financial services and healthcare, and indeed now any industry handling people's personal data, organisations need to vigilant about ensuring that moving applications, information analytics and storage to the cloud does not leave data vulnerable to breach, loss or vendor lock-in. It's something that regulators are keeping a close eye on, as companies' cloud and digital service ambitions grow, to ensure organisations are doing right by their customers.

"GDPR and the regulatory environment raises questions around where data can be stored. Consider what could happen if things go wrong, how to avoid 'lockins' and exposure to price increases. A multi-cloud provider strategy will help alleviate these issues."

Atul Bhardwaj, Group CTO, MediaMarktSaturn

"The regulators are looking at cloud exit strategies: how you protect the service to customers," notes **Gareth Ainsworth, Chief Technology Officer at HSBC**. In other words, if one day the organisation wants to move its cloud-based activities to an alternative provider, how easy will that be? "The journey to cloud must consider this from the beginning, not at the end," he advises. "It should be designed for that portability, for switching your service. That's what the regulators want to see."

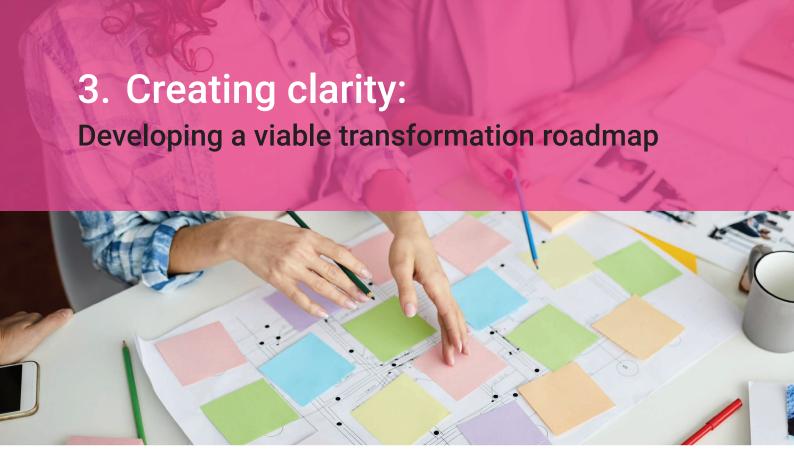
# Overcoming inertia: Legacy & compliance vs agile innovation

With such a lot at stake, there are strong arguments for methodical migration plans. But this doesn't always sit well with business stakeholders who want to roll out new service innovations and customer experiences quickly, to capitalise on emerging trends and opportunities. Too often, because cloud-based services are so readily available to tap into, business units go off at their own tangent – leaving IT departments out of the loop. From a CIO/CTO perspective, this can cause all kinds of chaos as processes and data protection measures are no longer consistent or joined up.

Finding a middle ground will be important – an approach that gives business functions the speed and agility they need to experiment and drive product innovation, without compromising the need for central company control over IT strategy and data management. "The issue of agility and speed is the primary cause of [digital transformation] failure in large organisations," Gareth warns.

"You have to ask yourself the question do you transform your company into a digital operation, or do you simply build something beautiful, such as nice graphical interfaces around your legacy systems? The real consideration is whether you are actually looking to drive change or just shield people from seeing beneath the surface."

Patrick Boscher, Group Head of Compliance Transformation & Innovation, Allianz



No business wants to be left behind in its market because of a cumbersome technology infrastructure which costs the earth and is no longer fit for purpose in a lean, digital-first age. But IT modernisation does not rely solely on cloud migration, and its value is not linked solely to enabling agility.

Modernising practices around software development, system security, operations and more is just as important to drive a more efficient, cost-effective and relevant IT environment that meets the needs of the business. Leveraging the cloud may prove to be crucial (Forrester had to revise its 2019 predictions, as enterprise cloud growth during the year exceeded even its boldest expectations), but it is just one enabler of the business of the future.

So what might an effective roadmap look like, which keeps everything in perspective and delivers practical progress?

It helps to align this with three key points:

- a. Purpose: Why are we modernising?What do we need to achieve?
- b. What specific improvements/ changes can we achieve in a reasonable timeframe?
- c. What will the proof of success be, and how will we measure it?

# Developing a viable transformation roadmap

"There needs to be a purpose and a plan for IT modernisation. It shouldn't be a 'top-down' mandate, such as: 'We will now invest in seriously embracing the cloud which means getting rid of our legacy,' or a vague idea that innovation means you need to digitalise that".

"Transformation means rethinking what you're currently doing, and exploring how you can do it better. There is a common misconception that moving to the cloud means copying and pasting whatever an organisation has in its legacy estate to the cloud – which essentially means moving a big mess from one data centre to another. This is where I see a big issue."

Patrick Boscher, Group Head of Compliance Transformation & Innovation, Allianz

Media focus on advanced technology, and enthusiastic presentations at industry conferences, can be powerfully persuasive in convincing business and technology leaders that 'disruption is nigh' and 'digital transformation is paramount'. But for each organisation there needs to be a series of clear drivers for change. What is that the company needs to do differently, and why? Where are revenues/profits most under threat? Where are customers encountering the most friction, or a sub-par experience? Where are costs proving most unsustainable in the business? Where are skills shortages the most acute? Where is strategic data lacking?

**Bernd Meurer, Chief Technology Officer at BT**, believes understanding what the business wants to digitise – and why - is crucial. "Is it just improving or automating a process that already exists today? Or is it a completely new idea about how you will work in the future, up to the point where you critically assess the market for your product in the digital world?"

<sup>&</sup>lt;sup>3</sup> Predictions 2019 Update: Cloud Computing Soars To New Heights, Forrester blog, April 2019: <a href="https://go.forrester.com/blogs/cloud-computing-predictions-2019/">https://go.forrester.com/blogs/cloud-computing-predictions-2019/</a>

# Developing a viable transformation roadmap

"Transformation must be business-led or there is a high chance it will fail.

This means every single person in the business has to care about the IT that runs their function. Work on the relationship with the business, modernise your IT processes, tools and architecture, and stick to global platforms."

### Atul Bhardwaj, Group CTO, MediaMarktSaturn

Once business and IT stakeholders are clearer about what they're trying to achieve, they can start to scope all the different system, data and process elements that will need to be reviewed and redesigned. A joint approach is critical. Simon Legg, Group Chief Information Security Officer at Jardine Lloyd Thompson Group (JLT Group), warns that any technology transformation will fail if it isn't business led. "Too often IT departments assume, 'If we build it, they will come. "They won't," he says.

With a joint vision and clarity around purpose and what may be possible, companies can start to plot out the different steps that will need to take place to get from A (the current state) to B (the brave new world), and specific complexities that will need to be assessed and quantified.

If the goal is to bring greater consistency to the customer experience across multiple touchpoints (call centre, web chat, mobile, in-branch), for instance, the business sponsors can work with IT to review the intricate mesh of systems that will need to come together, and the surrounding considerations if these are to be integrated on a new, standards-based platform hosted in some form of cloud facility.

The array of data involved, for instance, will have a bearing on how and where this data is stored and processed: EU data protection rules preclude certain data passing outside European data centres. This needn't scupper plans to use cloud services, as long as the right parameters are set from the start and written into supplier agreements.

# Developing a viable transformation roadmap

Organisations can protect themselves further too, by establishing relationships with multiple cloud service providers, spreading the risk of a single point of failure. "It's common to end up with hybrid or multi-cloud scenarios," says BT's Bernd Meurer. "Companies don't want to be too reliant on one cloud provider. If they use technologies such as software containers and 'hyper-converged' data centres, they can more easily move workloads between cloud providers and private data centres. I would recommend that every major company looks at their cloud strategy from different angles: disaster recovery; cost efficiency; and the flexibility to move workloads around if they want to."

Northern Trust Corporation has built relationships with most of the major cloud providers, its early experiences with private cloud solutions building confidence to branch out into more public services, which offer many of the same benefits but with greater cost-efficiency, speed and scale. "Our Guernsey private-equity blockchain solution was the first product that we moved to the public cloud," **Anthony Stevens** says. "Before that, the bank had been experimenting with private clouds operated by the main service providers. We spent a lot of time on small projects, working through the complexities of moving onto a private cloud then onto the public cloud. Straight away, we saw that we could deploy technology more rapidly."

Although cost should never be the sole or primary driver for cloud-based IT modernisation, there are important financial considerations when comparing old and new set-ups, relating to the overall cost of ownership. "For example, if the business wants to get its data back from the cloud, this will incur a cost," warns **BT's Bernd Meurer**. "It's important to determine the use cases where the cloud actually pays off: for some the public cloud is fantastic and for others it doesn't make as much sense."

# Developing a viable transformation roadmap

"There's not much value in migrating an existing infrastructure to a new infrastructure in the cloud. But if you use the platforms and software services that are offered by the hyperscalers to deploy new applications, the cloud can make a huge difference."

Bernd Meurer, Chief Technology Officer, BT

**Simon Legg at JLT Group** warns that there are a number of factors to keep track of, to avoid cost escalation - both during migration of IT activities to the cloud, and during ongoing service delivery. Just because services can be delivered relatively quickly via the cloud does not rule out the scope for 'making a mess' that can be costly to clean up, he notes. "Within a month, it's possible to create a very complex architecture for a complex environment and lose control over expenditure: it's known as cloud spiral," he says.

"If you have a mature environment with many applications – and many of our customers have several thousand applications - then there are a lot of dependencies and interfaces. So it doesn't make much sense to bring one isolated application into the cloud. You might have to bring a full group of applications into the cloud and you need to keep in mind they will probably not use the latest standards to talk to each other."

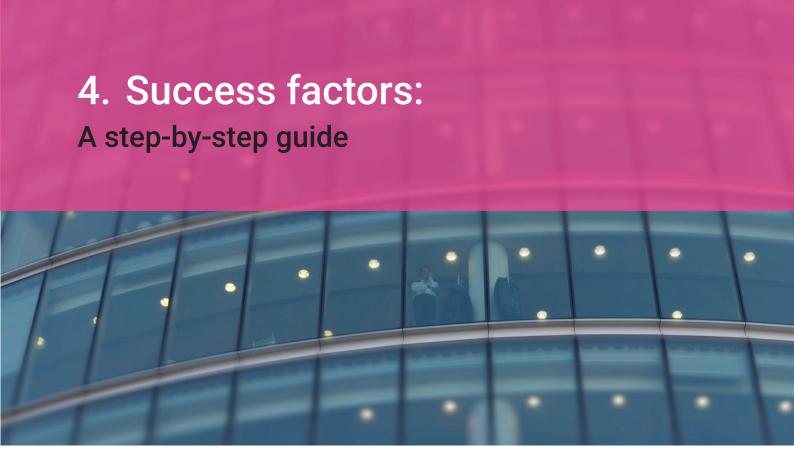
Bernd Meurer, Chief Technology Officer, BT

# Developing a viable transformation roadmap

Research by Virtual Clarity indicates that in a typical roadmap for cloud migration, the future state - the target operating model (TOM) – is too often an afterthought. Either that, or consulting firms go overboard - redrawing everything from scratch, with the effect of overwhelming CxOs.

Our experience shows that the priority should be to hone in on elements of a business, service or process and the underlying IT which specifically require modernisation. We also advocate delivering changes in short sprints, enabling the business to deliver results more quickly and affordably.

Knowing upfront what needs to be improved, and why, will help focus attention where it is needed. Then, stakeholders can invest time in a focused way, to create a sound, targeted business case and a clear roadmap, which in turn will make it easier to measure value at each step along the way.



As has become evident, much of the success of IT modernisation lies in the execution. It is not unusual to see migration projects run over budget by as much as 50% to 100% - or fail totally – because of a lack of foresight, and inadequate project parameters.

To avoid failure and to accelerate success, we have distilled the following proven best practices from our work and broader interactions with customers.

### **Discover**

The aim in the discovery phase is to arrive at a 'single source of truth' about the IT that needs to be changed. This should include information about application interdependency which will affect or be affected by the transition to the new set-up. This comprehensive overview is essential for a successful migration. The aim should be to build a complete, up-to-date picture of app-to-app, app-to-infrastructure and app-to-service relationships. This is essential for understanding where risk and complexity exists. Today, the latest data science techniques, in the right hands, make achieving a single source of truth relatively painless.

### **Success factors:**

# A step-by-step guide

### Assess

Armed with a complete picture of what they're dealing with – the current state of play, as well as the vision for where IT needs to be - the migration team can start to draw up an assessment of what needs to happen, how and when.

We advocate a dynamic assessment, which helps enterprises define suitable 'landing zones' based on their requirements and appetite for risk, security, compliance, cost and more. Taking each application in turn, the team will need to determine what will need to be retired, re-hosted, remediated and 're-platformed'.

This process also supports a strategy of using multiple cloud service providers, enabling the company to assess which services offer the best match with particular application requirements - relating to security, cost, compliance, and so on. This in turn helps the business to spread its risk, ensuring that it is not tied to or dependent on a sole cloud brand.

### **Agile migration**

Following an effective discovery and assessment, the company can begin to plan the migration of designated applications to the cloud, accelerated thanks to the targeted landing zones.

Migration projects are always subject to change, making agility essential. In the digital era, old-style change programmes and development cycles lack pace and relevance, undermining the impact of initiatives. Iterative, 'sprint'-based delivery is much more effective, allowing teams to roll out benefits quickly, and keep learning and refining as they go, without the risk of overspend or loss of speed.

And of course migration is not just about adapting and moving technology; it is about bringing people along on the journey, though a planned process of communication and retraining. And in the meantime, business as usual must continue uninterrupted.

### **Success factors:**

### A step-by-step guide

Communicating with regulators or other third parties may need to be a part of this re-education process, so that they too understand what the organisation plans to do in the cloud, what difference this could make to customers, and what safeguards and other controls have been put in place to keep everything clean and compliant.

"In each territory now, regulators see that major organisations are effectively outsourcing a significant amount of their capability, and that capability is at the forefront of customer-facing services," notes **Gareth Ainsworth at HSBC**.

JLT Group applies a combination of strong organisational change management discipline and pragmatic risk management in its approach to the impact of change on people/process, as it migrates enterprise applications to the cloud. "Essentially it involves a lot of 'what if' scenario planning," **Simon Legg** explains.

"Most financial institutions have already started investing in technology: everyone is doing something. It's a case of: 'We need to innovate; we need to transform into a digital company.' But really it's the core that needs to be transformed: the way the company operates. There needs to be focus and intent. A lot of companies started doing this a couple years ago and are still on the journey: there's almost no acknowledgement of failure. No one is going to say, 'We've now invested 500 million or even 5 million at this point – but we'll write that off and start from scratch,' so they keep going regardless."

Patrick Boscher, Group Head of Compliance Transformation & Innovation, Allianz

### **Success factors:**

# A step-by-step guide

### **Business/IT collaboration**

As already noted, there is a growing acceptance now that effective IT-enabled business transformation cannot happen in a vacuum: IT and business stakeholders must work closely in partnership. At Northern Trust Corporation, the first move to the public cloud was spearheaded by the business, working collaboratively with the IT department as well as internal information security and product risk teams. "Business is becoming much more involved in IT decisions," **Anthony Stevens** notes.

But if IT is expected to be more business-minded, the same is true in reverse. **Allianz's Patrick Boscher** believes that in this digital age, the business needs an appreciation of how technology works and what it can do. Allianz is proactively building bridges by cross training and educating colleagues. "The business should be the owner - accountable for the final product because it's their job, and they'll be responsible for delivering solutions in the future," he says.

### ROI

With clarity around specific intentions and goals, teams should be in a good position to measure success. Expected benefits commonly involve internal efficiency, and getting products to market faster. Others might include digitisation of the product itself (eg a banking service), and associated scalability. Improved access to new business insights and tools for scrutinising these more closely, along with associated productivity gains, are among further popular aims.

More consistent data controls, more joined-up systems and clearer audit trails, meanwhile, could directly benefit compliance activities. Allianz expects to see 30 per cent savings on compliance costs across the group as a result of its cloud-based IT modernisation endeavours, Patrick Boscher notes, not least because the company doesn't have to start from scratch each time there is a new requirement: it can simply build on what's already there.



Post modernisation, companies will need to put measures in place to protect their investment and keep ongoing costs under control, for instance as demands and capacity grow, and as other parts of the business wake up to the potential of the cloud.

"The amount of software available for technical people means there is considerable scope for duplication, which will impact costs and staffing, so there will need to be checks in place," notes Mark Ryall, Head of Core Capability Architecture at Refinitiv, which provides financial markets data and infrastructure.

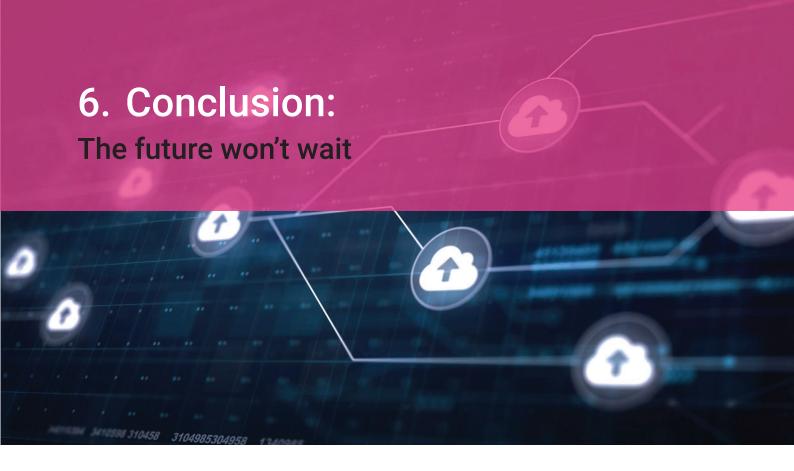
And of course, processes – including IT-related processes - will continue to evolve and adapt, with ongoing implications for people and their training. "Technology is just one major asset," **BT's Bernd Meurer** says. "It will be important to consider the change in processes, and the need for different knowledge in the team - because the cloud comes with a certain abstraction of services," he explains. "You might need to re-train your employees, who won't necessarily need to look into all the nitty-gritty technical details now."

Procurement processes are changing too, in relation to IT infrastructure and applications, as most of the public clouds are self-service, pay-per-use systems.

### **Continuous Improvement**

"Internally, when you buy a machine, as you wait to receive it you have just enough time to do all your data centre governance and processes. And from a security perspective, and a running perspective, it's relatively standardised. If you compare the equipment in cloud, you only get an image of an operating system from a cloud vendor. It won't have that company touch on it which has all the services integrated. Then it's easy for people who have a one-minute or one-second build on their hands to be able to prolifically install tons and tons of software, costs and licences. You don't have that initial waiting period for the machine and no time to get that standardisation right."

Mark Ryall, Head of Core Capability Architecture, Refinitiv



The call to modernise, digitise and move to the cloud will only grow louder over the coming months and years, especially as advanced technologies from blockchain to IoT, artificial intelligence and machine learning continue to disrupt existing business models and service delivery, and influence customer expectations.

The possibilities may seem as daunting as they are exciting, but with clear vision and focus, targeted use cases, and an agile migration plan, supported by an experienced transformation partner, there is much to be gained from seizing the opportunity, and sooner rather than later, to make positive and lasting changes that will serve your business well into the future.

Laying the foundations for long-term success, while delivering visible wins in the short term, offers companies their best chance of maximising their budgets and keeping plans on track.

# **About Virtual Clarity**

Virtual Clarity specialises in transforming enterprise IT, so customers can unlock the value of new technologies and new ways of working. We use a unique combination of techniques and tools which we have honed over 10 years of delivering and accelerating change in the biggest, most challenging mission-critical IT environments. We call what we do 'Precision-Guided Transformation'.

For more information, visit <a href="https://www.virtualclarity.com/">https://www.virtualclarity.com/</a>

### **Acknowledgements**

This report and the insights and advice it contains were collated with the candid input from CxOs at some of the most prominent global enterprises, who currently find themselves at varying stages along their own IT modernisation and cloud migration journeys.

We would like to extend particular thanks to those we have cited directly in this eBook, along with the numerous others who contributed more general insights towards the bigger picture.

### **Biographies**



### **Atul Bhardwaj**

Atul Bhardwaj is a Digital General Manager and Technology CIO who has 26 years of experience working in technology and operations. Atul has expertise in all aspects of retail, operating a large, global and modern technology organisation and running a set of systems at scale. Experienced at operating at the executive level and defining, shaping and delivering complex and innovative technology enabled change programmes whilst building highly capable, energised and motivated teams.



### Mark Ryall

Mark Ryall joined Reuters in 2002 as a technology graduate balancing software development, operational implementation roles with leadership development. Mark was a key figure in the transformation leading to Elektron Real-Time emerging as a premier market data service in the industry. Mark now leads Core Platform Architecture at Refinitiv.



### **Anthony Stevens**

Anthony has worked in the financial services industry for over 15 years and joined Northern Trust in October 2007. He manages the Product Innovation Group which is responsible for developing new products, keeping the business up to date with technology changes in the both the financial and non-financial markets as well as looking to access new external technologies and services that will enhance our clients investment management processes. Anthony and his team developed and released the first Private Equity blockchain product that supports Guernsey domiciled PE funds.

During his time at Northern Trust, Anthony has run EMEA Product Solutions, built out the Collateral & During his time at Northern Trust, Anthony has run EMEA performance analytics under the EMIR regulatory framework and run the EMEA performance analytics function supporting both asset managers and owners. Prior to joining Northern Trust, Anthony worked for Mellon Analytical Solutions where he was responsible for relationship management, working with over 200 asset management clients. Prior to this, Anthony worked for Merrill Lynch Investment Managers where he supported the international book of business for the performance team and at Intersec Research.



### Dr. Bernd Meurer

Bernd is a well experienced senior manager with a demonstrated history of working in the IT and telecommunications industry.

His skills involve sales, IT and cloud, go-to-marketing, innovation and team management. Bernd is a dedicated operations professional with a deep background in IT, project management and technology.

Graduate from Ecole Normale Superieure Paris and Max-Planck Institute Germany.



### **Gareth Ainsworth**

Enterprise Architect and CTO. Combining the above has given me the experience to lead on multiple IT Transformational and market defining propositions. I add the thought leadership from my career coupled with core technical skills in front to back banking systems, and with emerging cloud and containerization of applications to deliver best in class solutions.

My role as the CTO has added the additional dimensions of being responsible the entire application lifecycle leading an emerging technology landscape of cloud first, cloud native, site reliability engineering and dev/secops



### Simon Legg

Simon describes himself as a "Changer, Shaker, Motivator and Leader of Amazing People". The self proclaimed "Anti-CISO" he describes his approach as a business brain on technology shoulders. Simon has a broad and diverse range of experience most recently fulfilling the role of JLT Group CISO Office comprised of an operational Cyber Unit and an Information Security oversight functions including Business / Regional Information Security Officers and Information Security Risk Managers. As part of the role Simon took JLT's seat at industry and regulatory committees focused on Cyber Security. Prior to JLT, Simon was at PRA Health Sciences and Bank of America Merrill Lynch. At PRA Health Sciences Simon was responsible for building and maturing PRA's Technology function as a whole, this included the deployment of public cloud services and the establishment of the CISO and Technology Risk function during a period of five years while PRA more than trebled in size, successfully went Public and fully rebranded. At Bank of America Simon held various positions over a period of 17 years, this included the establishment of the payment technology operations domain and also becoming CISO responsible for all regions and businesses operating outside of the US (LATAM, APAC and EMEA).



### **Ant Morse**

Leading the Digital Solutions teams across Telefonica SMB focusing on how we can bring value and support to our customers on their journey to become digital businesses. Helping our internal sales people and customer alike navigate the plethora of products and solutions spanning the digital solutions space.

Experienced Telecoms executive with 22 Years' experience across a while range of roles from Sales and Account Management to Innovation and Technical product assessments.

Specialism in mobile and field force applications and Digital solutions with avid interest in the Internet of things and how IoT developments will change the way we live and work.

A positive and motivational leader with a track record of successes



### Mohammadali Meskarian

Mohammadali Meskarian is an IT strategist and a technology leader with 17+ years of experience in shaping and delivering technology-enabled change for large-scale projects. As a subject matter expert, he assesses organizational IT landscapes and leads teams to develop technology investment cases and road maps that align with business goals. As a leader and strategist, Mohammadali has designed long-range strategies for multi-disciplinary engagements and has defined technology road maps based on industry trends. He has built and led teams of experts to achieve project goals supported by a foundation of excellence with an MBA from Henley Business School. As a technology consultant, he has demonstrated expertise in workplace technology adoption, IT strategy, road map development, process optimization, IT security & governance, digital workplace and IT operating model. He is currently studying at Henley business university of Reading for a doctorate in digital transformation focusing on risk and governance of Artificial Intelligence systems.



### Patrick Boscher

Patrick understands compliance as a business enabler, in particular when using smart technology. He believes that RegTech can significantly simplify the implementation of complex laws and regulations. In the Allianz Group, Patrick is globally responsible for the digital transformation of the compliance function leveraging innovation and technology.

His background is business information management, he lives in Munich and is a fellow of the Bucerius Summer School on Global Governance.

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Boehringer Ingelheim	Jan Broermann	Associate Director, Lead IT Architecture M&S
Bofrost	Catalin Barbulescu	CIO
Bosch	Andreas Mueller	Director IT and Innovation Management in Manufacturing
Bosch	Florian Bankoley	Vice President IT & Consulting Lead Mobility Solutions
British American Tobacco	Bruce Griffin	Head Of Architecture (acting)
British American Tobacco	Nick Giannakakis	Chief Technology Officer
British Gas	Andrew Ward	Head of Digital Customer Experience
British Telecommunications PLC	Robin Butler	Interim Director of Service Transformation
BT Cables Ltd	Dr. Bernd Meurer	Chief Technology Officer - Major Account CTO
BT Cables Ltd	Neil Catton	Director Digital, Data & Integration Architecture
BT Cables Ltd	Robert Novo	Proactive Operations Director
BT Group plc	Siddharth Pandey	General Manager, Transformation & Shared Services, BT Group
BT Group plc	lan Poland	CIO - BT Unified Trading
BT Group plc	Scott Crumley	CIO Head of Data and Personalisation
Bupa	Joel Roxburgh	Director of Transformation + Continuous Improvement
Capita	Lee Goldberg	Chief Information Officer
Carlsberg Group	Peter Lidell	Global Director of Information Security and Risk Management (CISO)
Carlson Wagonlit Travel	Abol Froushan	Senior Director, Enterprise Architecture
Centrica plc	Ajay Deolia	Global Director Non-Production Operations
CIGNA	Christopher Franskin	CIO International Organisations & Africa - Board of director
Computershare	Gune Mayanglambam	Head of Delivery Transformation
Costa Limited	Noel Bresland	Head Of Information Technology - Service and Operations (Interim)
Covestro AG	Nils O. Janus	Global Head of Advanced Analytics
Daimler AG	Sitaram Panse	Senior Project & Application Manager
danfoss	Brian Espersen Riemer	Director IoT Platform Architecture
Dansk Supermarked A/S	Steen Kronborg	Chief Enterprise Architect
Danske Bank	Vitaliy Ulantikov	Head of Market Risk IT
Danske Bank A/S	Krista Korelin	Director, Digital Services & Service Channels
DekaBank	Daniel Kapffer	C00
Deutsche Bank	lan Byrne	Global Process Transformation - Director
Deutsche Telekom	Alexander Marten	Chief Innovation Evangelist
Discover Financial Services	Mark Edwards	Head of Development Strategy and Transformation
Dubai Airports	Michael Ibbitson	EVP Technology & Infrastructure
E.ON	Dr. Martin Endress	SVP Digital and Data
ERGO Group	Joe Lapierre	Managing Director, ERGO Digital IT GmbH
Falck	Keld Hjortskov	Head of Solution Architecture
Faurecia	René Deist	CIO
FINASTRA SARL	Gregory Guy	Senior Manager, Head of Innovation
FLSmidth	Steen Helles	Digital Project Director
Fox Careers	Baij Patel	Director of Infrastructure & Technology - Europe
		Director Of Platform Engineering & Operations
Generali	Christian Nicoll	Director of Flatform Engineering & Operations
Generali GSK	Christian Nicoll  Martin Cooper	Interim Director of Strategy, Architecture and the Project Management Office (Contract)
GSK	Martin Cooper	Interim Director of Strategy, Architecture and the Project Management Office (Contract)
GSK GSK Halliburton	Martin Cooper Zayd Rasool	Interim Director of Strategy, Architecture and the Project Management Office (Contract)  Director - Service Excellence
GSK GSK Halliburton HAVI	Martin Cooper Zayd Rasool Marcos Vera	Interim Director of Strategy, Architecture and the Project Management Office (Contract)  Director - Service Excellence  Solutions Architect
GSK GSK	Martin Cooper Zayd Rasool Marcos Vera Thomas Pagnoux	Interim Director of Strategy, Architecture and the Project Management Office (Contract)  Director - Service Excellence  Solutions Architect  Global Head, IT End User Services
GSK GSK Halliburton HAVI Horwich Farrelly	Martin Cooper Zayd Rasool Marcos Vera Thomas Pagnoux Chris Jekiel	Interim Director of Strategy, Architecture and the Project Management Office (Contract)  Director - Service Excellence  Solutions Architect  Global Head, IT End User Services  Director of Information Technology

HSBC	Gareth Ainsworth	Chief Technology Officer
HSBC	Steve Davies	Head of Architecture MCIT
HSBC	Francesco Cipollone	Head of Security Architecture & Strategy
HSBC	Mark Sibson	Global Head of Cloud & Infrastructure Services, Digital
HSBC	Anas Bourani	Chief Enterprise Architect
Huawei Technologies Co., Ltd.	Johan Westin	Chief Architect, EBG Nordic
Huawei Technologies Co., Ltd.	Jason Cross	VP Software and IT, VF DE KAD
Huhtamaki	Antti Valtokari	CIO
	Jennifer Anderson	
Incuto		CTO
Innogy	David Benkelberg	Head of Workplace Services
lss world	Mats Randleff	Chief Information Officer
Jaguar Land Rover	Laura Lucas	Senior Manager Demand & Operations, Data IT
Jardine Lloyd Thompson Group	Simon Legg	Group Chief Information Security Officer (Ciso)
Jardine Lloyd Thompson Group plc	Andrew Livesley	Group Chief Architect
KAEFER	Daniel Oestmann	Head of Corporate Information Technology
Kelly Services	Alexandre Kozlov	Director EMEA IT
Konica Minolta, Inc	Dennis Curry	Executive Director and Deputy CTO, Technology Fellow
KPN	Perry Jackson	Director KPN   Technology Labs
Lloyds	Jitesh Dineschandra	
		Head of Agile Transformation (Retail Banking)
Lloyds Banking Group	Justine Sacarello	Director, Head of Legal & Regulatory Change, Group Transformation
Maersk	Rasmus Hald	Head of Cloud Center of Excellence
Maersk	Eilif Hansen	Head of Vessel IT - Operation
MediaMarktSaturn	Atul Bhardwaj	СТО
Michelin Group	Eric Chaniot	Chief Digital Officer
Mylan N.V.	Chris Walter	Vice President Commercial Information Technology, Europe
National Grid	Paul Banga	Global Cloud Services Owner (Interim)
National Trust Jobs	Jon Townsend	Chief Information Officer
Nationwide Building Society	Anthony Glenholme	Head of Efficiency Strategy & TBM, IT & Operations
Nokia Nokia	Jan Hendrik Soeller	Head of Operations West Europe Care Hardware Service
	Akin Akintola	Head of Global Innovation Networks
Nokia		
Nokia	Henri Helanterä	Head Of Program Management And Operations
Nokia	Nicolas Buet	Head of Business Operations
Nokia	Heikki Almay	Head of Architecture
Nordea	Patrik Felixson	Head of Service Delivery Leadership
Nordea	Per-Olof Lindqvist	Chief Enterprise Architect
Nordea	Patrik Felixson	Head of Service Delivery Leadership
Northern Trust Corporation	Anthony Stevens	Global Head of Product Innovation, C&IS
Novartis	Steven Partridge	Head of Change Management - Novartis Business Services
NPower	Richard Pratt	Head of Strategy & Transformation
nrk	Oystein Pettersen	Head of IT operations
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OP Financial Group	Janne Salminen	Head of Department, Hybrid Infra and Datacom
OP Financial Group	Niko Mikkola	Head of Digital Retail Channels
OP Financial Group	Anders Stenbäck	Digital Director, SVP
OSRAM GmbH	Hanna Hennig	CIO
Post Office Ltd	Peter Hanby	Enterprise Architect, CTO team
Posti Group Corporation	Majid Ali	Head of Business IT
Proximus plc	Matteo Gatta	Technology Strategy & Innovation Director
PwC	Mohammadali Meskarian	Senior Manager - CIO Advisory
PwC	Daniel Rispoli	CIO Advisory, Digital and Technology Transformation
PwC	Andy Cook	Chief Technology Officer, Government & Health Industries, UK
	Dave Roberts	CIO
Radius Payment Solutions		
Raiffeisen Bank International	Hermann Trimmel	Director International IT Strategy and Governance
Rail Delivery Group	Tim Wood	Head of Architecture
Ramboll Group	Tolga Erdogan	Business Manager Business Technology & Digitalisation
Rebrandly	Mikko Marsio	Digital Lead/SVP, Digital, Process Industries
Refinitiv	Mark Ryall	Head of Core Capability Architecture
Refinitiv	Mark Hamshaw	Senior Solution Architect
Rentokil Initial plc	Dan McCormick	Group Digital Products and Al Director
Roche	Philipp Steurer	Head of DIA Common Assets Architecture
ROHDE&SCHWARZ	Dr. Sherif Ahmed	Director of Innovation Lab
Santander	Felipe Penacoba Martinez	Chief Information Officer
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Scania	Anita Lau	Head Of Srs Office, Commercial Operations
Securitas	Jens Ekberg	Vice President, Technology and Transformation
Siemens AG	Vladimir Navrotsky	Chief Technology Officer
Skanska	Per Bostrom	CIO
skanska	Conny Björling	Head of Enterprise Architecture
Sodexo	Vetea Lucas	Head of IT Security and Compliance
Standard Chartered Bank	Yvonne Boateng	Employee Advocacy Director - change management & technology roll out
Stora Enso	Miia Satomaa	VP, Head of Global Infrastructure & End User Services
Swedbank AB	Pierre-Yves Geffe	Chief IT Officer
Swedbank AB		
	Olari Ilison	Head of Enterprise Architecture
Telefónica Europe	Ant Morse	Head of Digital Solutions
Telekom Deutschland GmbH	Jean-Claude Geha	SVP International Technology & Services Delivery, Chairman Deutsche Telekom Pan-Ne
Telekom Deutschland GmbH	Nils Stamm	Chief Digital Officer - CDO

Terex	Ingrid Schwarz	Vice President IT
The Adecco Group	Pablo Naicker	Head of Adecco Group X
THE SWISS RE GROUP	Marco Peyer	Head Business Process Management - Director, Reinsurance P&C, IT
THE SWISS RE GROUP	Christopher Ling	CTO - EMEA iptiQ PnC - Swiss Re
The University of Manchester	Malcolm Whitehouse	CIO
TUI GROUP	Matthias Pyck	Director ICT WR Software Delivery
Turner	George Choi	Director of International Architecture
UBS	Arvinder Bhachoo	Director Enterprise Architecture
UBS	Helmut Kaufmann	Managing Director - Technology Risk Management
Uniper SE	René Greiner	VP, Data Integration
University of Sussex	Jason Oliver	Director of IT
UPM	Turkka Keskinen	Chief Information Officer
Vapiano	Eric Gliemmo	Head of IT
VELUX	Yuri Lits	Head of Global IT business Sales/CIC/Service
VEON	Maxim Kharchenko	Global Head of Digital Products
Vodafone	Angela Maragopoulou	Global Head Of Network Application Operations At Vodafone Group Technology
Vodafone	Mike Jacobs	Head Of Service Operations
Vodafone	Adi Chhabra	Head of Product Innovation
Volkswagen	Florent Giraud	Head Of Data Intelligence (Commercial Operations) - Group Audit
Volvo	Erik Severinson	Vice President & Operations Controller
Williams Lea Tag	Ricky Santos	Global Chief Information Officer
Willis Towers Watson	Duncan Betts	Director, Insurance Consultancy and Technology
WPP	Marc Lacroix	Regional Head of IT Services, EMEA at Coretech, a WPP Company
Zurich	Monika Schulze	Global Head of Customer Experience & Digital Strategy
Zurich Insurance Company	Angelo Andreetto	Head of Enterprise Data Architecture and Data Management