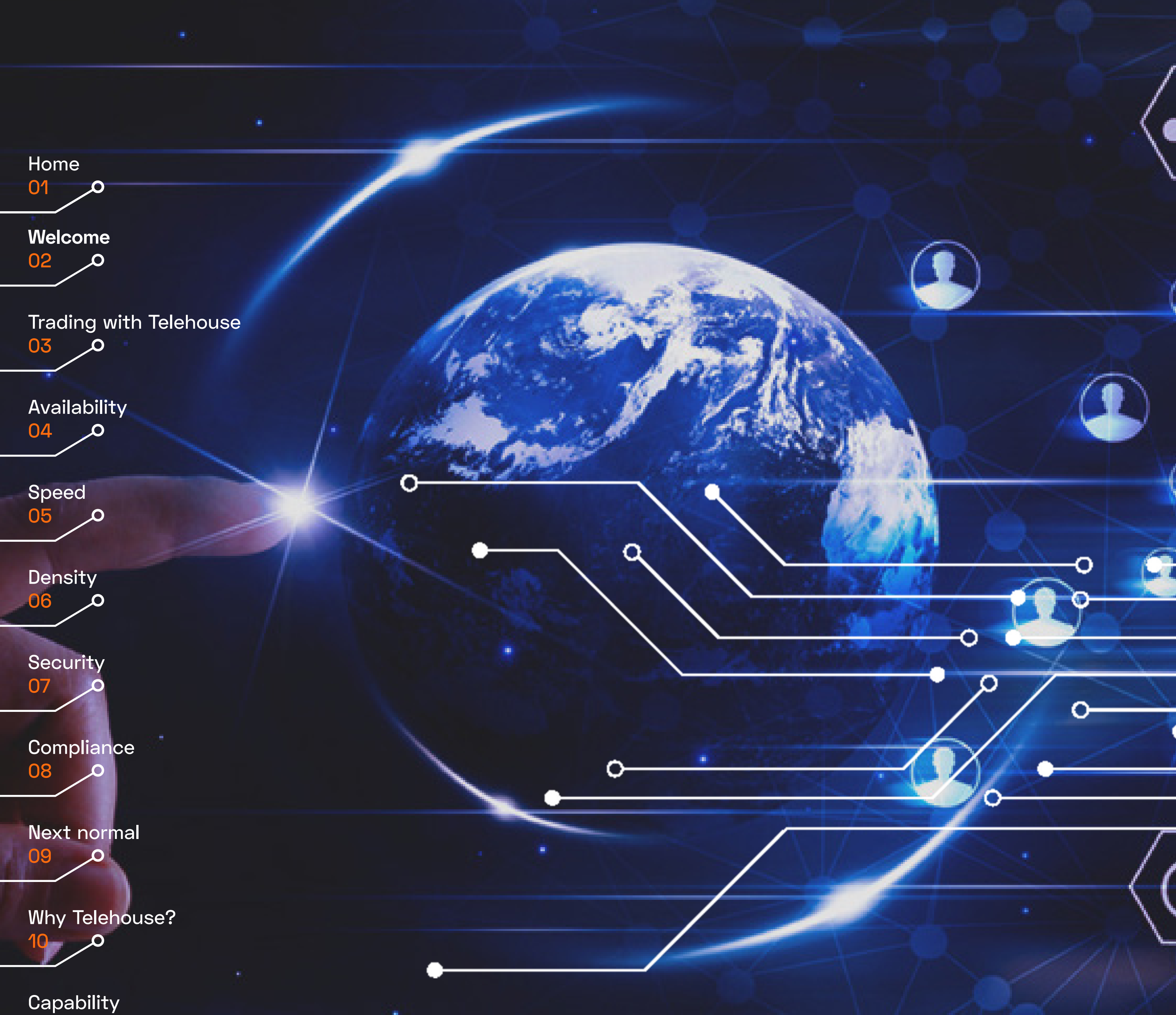
TELEHOUSE

30 Empowering the connected world for 30 years

Financial services sector sea-change affects hosting and colocation dynamics

The entire financial services sector has had a massive dose of change in recent times, and COVID-19 has only added to the upheaval. Front-line contact centres, which form the organisation's omnichannel doorway to the virtual branch, have had to move their business models to remote working, while take-up of online services has rocketed. At the same time digital initiatives already underway, like big data and analytics and AI-powered bots, are continuing to have fundamental effects. Those digital transformation waves are breaking on colocation providers' shores and driving us to look anew at what we do.



Welcome to the new world

How will the financial services sector cope with the challenges of the next normal? This eBook takes a whistle-stop tour of some of the challenges and opportunities ahead, and their likely effects on financial services.

The technologies that are (finally) coming into their own like data analytics, automation and artificial intelligence. Security and compliance, those stalwarts of financial governance. The coming-of-age of Generation Z. The incalculable importance of the customer experience – and what it looks like now. Plus, our own bit of crystal-ball gazing.

We relate all this to your IT infrastructure, working out what it means in terms of performance, storage capacity and accessibility. We think about physical requirements like space, power and protection. And we explain why Telehouse is the colocation and hosting partner of choice for the financial services sector.

Select from the sidebar tabs over on the left-hand side to see our vision for the future, or simply click through from page to page. Then talk to us. We're listening.

Trading with Telehouse

Assuring optimal outcomes for all parties

Supple, all-embracing approach

Working directly with prospective financial services clients or at arm's length with consultants managing RFPs on their behalf makes little difference to the Telehouse team. We've developed a comprehensive model covering all exigencies, which assures optimal financial, architectural and operational outcomes for all parties.

With the promise of total attention from every member of our team you'll enjoy the fully flexible, collaborative mindset described in the chart below. Roll over key words to learn more.

Commitment

Engagement

Alignment

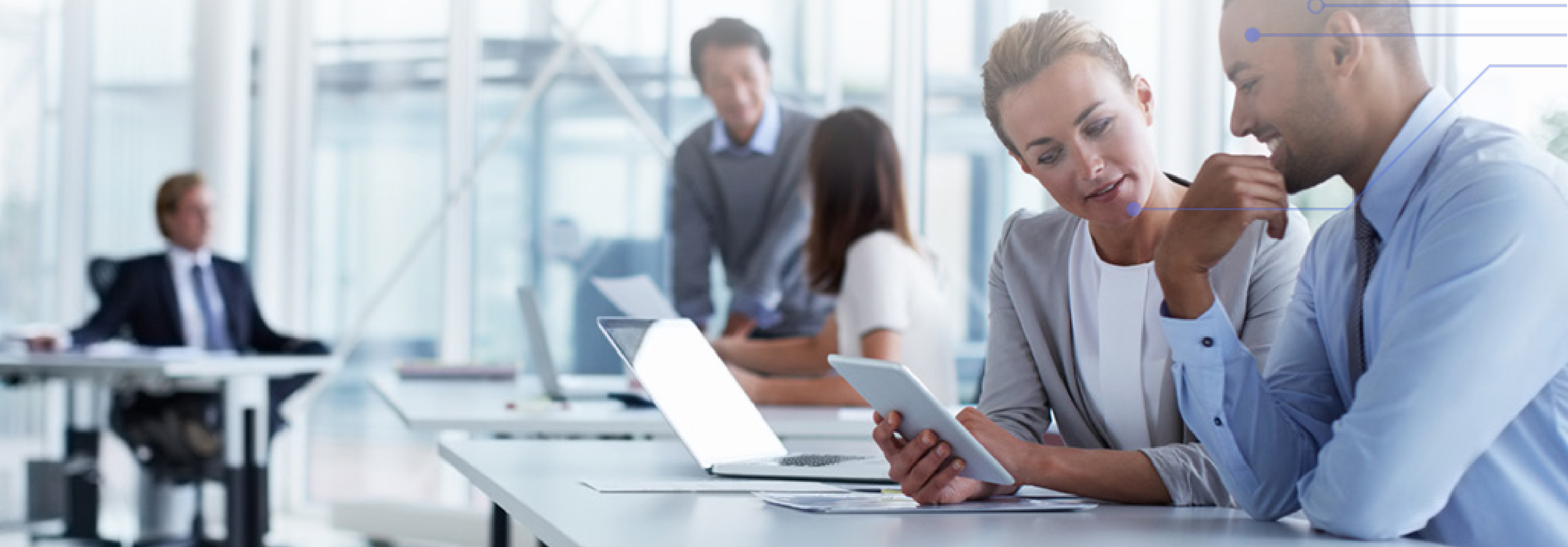
Responsiveness

Openness

Pliancy

Don't just take our word for it.

Click here to read our case studies.



Availability

Millions adopt digital channels, raising the service delivery bar for banks and insurers

Seize the digital day

The customer experience (CX) essential to commercial success is undergoing a sea-change. The authors of a **KPMG report**, produced after the first phase of the COVID-19 pandemic, note: "Almost every major organisation will have to re-engineer how it interacts with the new customer." In a few short months in 2020, such new customers moved online in droves. Nobody knows how many will stay.

But, having sampled digital interactions – often for the first time – they expect the desired outcomes quickly and flawlessly. Brilliant self-service and automation will increasingly handle the simple stuff, while human agents take care of complex matters. Technology and the personal touch have never been so intertwined.

Satisfying digital appetites

There's a huge opportunity here for financial service providers. At the sharp end during lockdown, they were dealing with anxious customers in need of advice or assistance. Afterwards, **KPMG Insight** predicted an increased appetite for insurance and savings products alongside a greater willingness to engage more closely, and in different ways, with finance companies.

Now, the challenge is to satisfy this appetite. To forge ahead with digital transformation and offer customers not only frictionless omnichannel interactions but also far greater personalisation to help with life decisions and problem solving. **McKinsey** believes this requires finance companies to display "radical creativity" as they seek to "unlock growth in the next normal".

In that altered landscape, there's little doubt positive CX will spring from personalisation. Knowing the customer's name and transaction history with your company is no longer enough. Today, financial firms need deeper knowledge of customers' individual circumstances and preferences at every stage of their lifecycle. And, depending on those circumstances, commercial considerations need to be tempered by more compassion.

> Brilliant self-service and automation will increasingly handle the simple stuff, while human agents take care of complex matters. Technology and the personal touch have never been so intertwined.

Trailblazing as branches transform

All customer experiences must be first-rate, no matter what channels are involved. Video is moving centre stage and, according to KPMG, is likely to become a fruitful sales channel for certain insurance products. The other relentless trend is towards mobile interactions on smartphones, especially for Generation Z (more about them on page 5).

Amidst this mass digital migration, bank branches are unexpectedly standing their ground. But they'll need a makeover to appeal to Generation Z, which prefers a less formalised face-to-face setting. One US bank turned an established format on its head by opening coffee shops where financial advice is available. Giving customers what they want, this is a trailblazer for the flexible thinking and customer-centricity essential for the entire sector.

24/7/365 customer connections

What does all this mean for your IT infrastructure? In a word: availability. Customers of all ages now expect to be able to access their digital banking, insurance or wealth management services at any time, from anywhere, without any connectivity problems. Telehouse is the colocation partner that delivers 2N+1 redundancy with 99.999% uptime. We ensure the connection to your customer flows without interruption, so you create perfect CX every time.

Speed

Mature consumers emulate brand-new customer group in seeking sound advice and flexible service delivery

Torch bearers for the next normal

Born between 1996 and 2010, Generation Z is the first to have no experience of life before the internet and mobile phones. Digitally native yet rooted in the physical world, in 2019 they accounted for 32% of the global population. That's 2.47 billion people, making them the largest demographic on the planet. According to **Fintech Futures**, by 2030 they'll represent one third of all global consumers. And they're growing up.

> "With stratospheric confidence in digital's ability to deliver, Generation Z-ers expect instant responses, instant advice and instant processing of products or services."

Interestingly, the pandemic brought older consumers closer to Generation Z in their behaviour and approach to personal finances. **KPMG** defines post-COVID-19 customers in general as "more digitally-savvy, value conscious and principled". All those terms could equally be applied to Generation Z.

There's more. The pandemic drove home to everyone the importance of prudent financial management. Generation Z-ers, having grown up in the shadow of the 2008 financial crisis, are markedly more conservative about money than Millennials. That caution is now spreading across other age groups.

A **Swiss Re survey** of insurance customers in Asia Pacific found that interest in life and health products had increased since the COVID-19 outbreak. And 27% of respondents reported feeling more anxious about their finances, a figure that's likely to be replicated in other parts of the world. In retail banking, an **EY Future Consumer Index** revealed 26% of respondents now expect to "invest more in being prepared for the future".

Proving digital's worth

A McKinsey report noted the COVID-19 crisis "has left consumers with a greater need for financial advice-and a new openness to receiving this advice remotely." According to a **Target report**, Generation Z-ers were already open to being advised on financial matters, albeit face-to-face rather than online. They are most likely to seek advice from family (73%) or friends (43%), suggesting word of mouth is currently a powerful factor for this youthful cohort.

The pandemic swept away many mature consumers' objections to digital services. Generation Z-ers, whose use of technology is instinctive, were ahead of the curve. They'll surely be the first to completely drop cash and cards in favour of mobile and e-wallet payment services. But **EY** notes COVID-19 prompted a 34% increase in contactless payments by all demographics, along with a 57% fall in cash usage.

Performance is king

What does all this mean for your IT infrastructure? In a word: speed. It's of the essence for Generation Z-ers. With stratospheric confidence in digital's ability to deliver, they expect instant responses, instant advice and instant processing of products or services. And other age groups are catching on. Telehouse is the colocation partner that offers fast connections, everywhere, from 40+ data centres and more than 800 service providers worldwide. Our reach gives consumers of all ages the rapid access and performance they require for a rewarding customer experience.

Density

Understanding customers and streamlining processes depend on secure, scalable data storage with superfast links

Making sense of uncertainty

Crouching behind customer experience (CX) and personalisation, ready to spring into action, lies data. With a newly digital business world taking shape before our eyes and faster than anyone anticipated, the ability to access, analyse and act on customer information has never been more vital.

- **First, there's the challenge of working out what's going to happen next. In September 2020, for instance, EY noted a 72% rise in the use of fintech apps in Europe. But another EY report from August 2020 had found that only 16% of respondents would change their banking habits in the long term because of COVID-19. Nobody knows how much the spike in digital interactions with financial service providers will be sustained.**

- **Second, as customers warm to digital channel experimentation, they're less predictable. Perceptions of convenience once evolved slowly; branches and ATMs satisfied needs for decades. Today, growing numbers see convenience in digital services. But face-to-face is still highly rated by Generation Z, older people and those seeking expert help. An unerring ability to interpret such shifting trends is one of the sector's most prized assets.**

- **Third, getting to know customers, and staying in touch with their changing circumstances, is the only way to deliver high-quality, personalised CX.**

To manage this fluid situation, financial service providers need all their data in one place, with the skills and technologies to analyse it offline and in real time. Success will also require increased automation of front and back-office processes, to further speed transactions and streamline customer journeys.

Automation, fuelled by ever-smarter AI, will ignite a chain of improvements across the sector. It will introduce efficiencies into the manual elements of payments processing. In wealth management and insurance ecosystems, it will enable tighter integration between parties and smooth out bumps in the customer journey.

Above all, automation will deliver increasingly rich and seamless self-service experiences to discerning consumers of all ages. Operational cost savings, although likely to be colossal, will take second place to the excellence of the individual experience. Everywhere, in customer-facing and back-office functions, success will hinge on a firm's resourcefulness in transforming shedloads of base-metal data into business gold.

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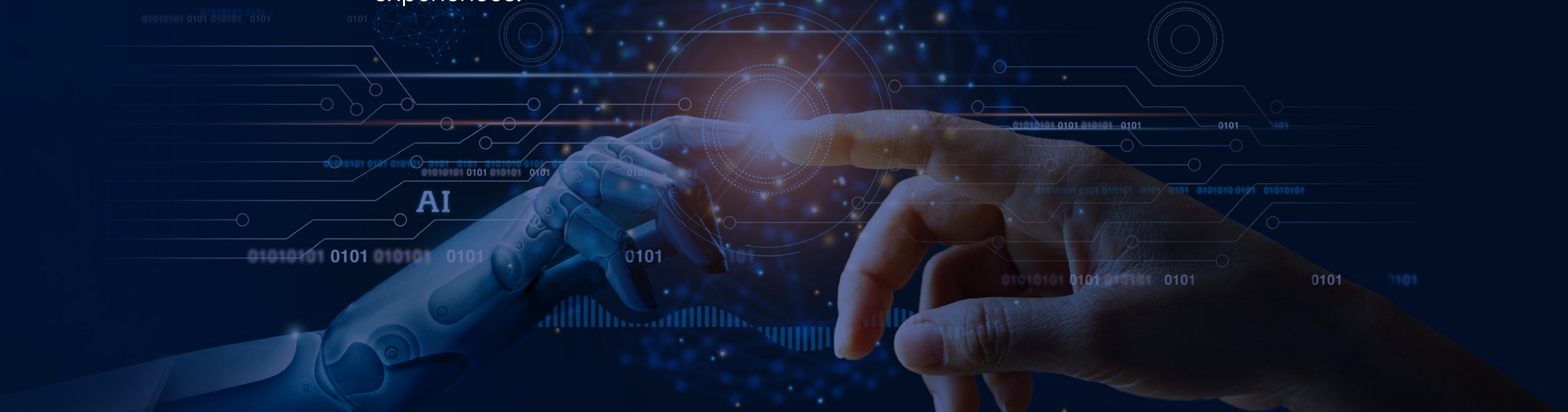
Information at your fingertips

What does all this mean for your IT infrastructure? In a word: density. Digital interactions generate vast amounts of data which, when analysed, lead to new products or service enhancements, followed by data-driven digital marketing. Generating new interactions, it's a virtuous circle. And it can't function without secure, flexible and accessible cloud storage.

The size of colocation facilities and their available power will ensure capacity to handle virtually limitless data volumes, with a failsafe power supply and ample room to grow. Telehouse is the colocation partner with four data centres in London Docklands – a fifth opens in 2022 – and onsite private electricity substations. We keep your data safely and readily available, so you can continue making decisions to fashion the best customer experiences.



Security

The five foremost financial services operational risks revolve around IT infrastructure and cyberthreats

Operational risk Top 10

In financial services circles, operational risk has been defined as "the prospect of loss resulting from inadequate or failed procedures, systems or policies." That covers a multitude of sins ranging from factors that helped precipitate the 2008 financial crash to coding errors leading to unwelcome headlines for a major bank.

> It's essential to look for a colocation partner that offers superior 2N+1 levels of redundancy and guarantees 99.999% uptime SLAs."

A list of the likely top 10 operational risks in 2020 can be viewed on the **Risk.net** website. Based on a global survey, the five foremost involve IT infrastructure and cyberthreats. That's a worry. When it comes to infrastructure, the forces at play include legacy IT systems, many 20+ years old, where the replacement process may open loopholes. Others include third-party risks like the insidious act of one's outsourcer outsourcing to another provider without thorough due diligence.

Cybersecurity mindset

The COVID-19 crisis revealed that the rush to move offices to safer home settings didn't take account of the gaps insecure devices might open. Cybersecurity teams have had to rapidly remediate less safe personal equipment. **A McKinsey paper** published in summer 2020 says: "Cybersecurity teams must no longer be seen as a barrier to growth but rather become recognized as strategic partners in technology and business decision-making."

It's not only home working, but also threat actors. Google counted over 18 million coronavirus-related malware and phishing emails every day in April 2020. It also reported 12+ government-backed groups using COVID-19 themes for such attacks. So, the McKinsey dual mindset covers securing remote working while anticipating security measures needed for customers, workforces, supply chains and channel partners working together in novel, next-normal ways.

Third-party risk priority

Third-party risks are no less apparent. Boards have recognised this as a strategic issue and made proactive management of third-party relationships a priority, going beyond first-tier vendors to include second and third tiers.

A **Deloitte website blog from 2020** says: "Financial services organisations remain primarily concerned with risk directly linked to capital at stake, transactional and credit risks. This ignores the continuing rise in reliance on third parties in terms of the outsourcing of sizeable portions of operations, which can have vast impacts on commercial operations." The third-party definition is expanding to include internal service providers as well. Finance institutions are implementing programmes with levels of control like those for external suppliers.

Assure security

Fulfilling international standards for the management of information security, customers of Telehouse Europe include many data-intensive companies whose individual needs we carefully and comprehensively accommodate. As well as the payment card industry data security standard, PCI-DSS v3, additional accreditations are held to ensure compliance with current data protection regulations such as GDPR.

In mitigating third-party risks, it's essential to look for a colocation partner that offers superior 2N+1 levels of redundancy and guarantees 99.999% uptime SLAs. Ensuring multi-layer physical security, Telehouse Europe London Docklands is guarded 24/7/365 by trained professionals, electronic access management, 360° perimeter fencing, proximity access control systems and CCTV. Along with fire detection and suppression, it's also the only UK company with an onsite private electricity substation. Dual 132kV power lines directly connect to the National Grid.

Compliance

The largest contributing factor to BCBS 239 non-compliance is not attaining target data architectures and IT infrastructures

Crash reverberates still

Thirteen years ago, we teetered on the edge of a financial precipice. Imprudent risk-taking on domestic mortgages and bundling bad debts into toxic assets were at the heart of the problem. US mortgage debt relative to GDP increased to 73% to reach $10.5 trillion in 2008. When the housing market shuddered to a halt, the wheels fell off. Governments, borrowing to save banks, had little option.

The resulting crash reverberates even now. A whole slew of regulation was published in its aftermath. The Basel Committee on Banking Supervision (BCBS) 239 Risk Data Aggregation and Reporting Principles in 2013 required implementation by global systemically important banks (G-SIBS) in January 2016. Here we are at the dawn of 2021, with many still hard at work on it.

A McKinsey 2017 paper **Living with BCBS 239** said, "… banks' overall level of BCBS 239 compliance remains unsatisfactory. In fact, local supervisors have concluded that only one bank can be considered in alignment with the principles." Elsewhere it reported G-SIBS that began in 2013 would need an average of five or six years to complete. Most haven't, implied a Deloitte **BCBS 239 Progress Report in 2020**.

> "These are dynamic processes, which evolve with changes in technology, business processes and strategic initiatives."

Achieve target data architecture

What's the problem? The Deloitte report says the largest contributing factor to banks' non-compliance is their inability to achieve target data architectures and IT infrastructures. The McKinsey paper pretty much agrees. At the heart of the issue is these are dynamic processes, which evolve with changes in technology, business processes and strategic initiatives.

This isn't breaking news. Just as well, as we reckon the public believes the 2008 lessons have long been learned. BCBS 239 has a lot to do with risk data, lack of which was a prime factor in the 2008 meltdown. So, if a bank's looking for priorities, that's probably where it should start.

Conceive of compliance-assured domains

At Telehouse, we live and breathe compliance. When it comes to regulatory requirements, our financial services customers need to meet PCI-DSS, GDPR, CCPA, CCAR and BSA/AML rules (to name but a few). And we provide fully compatible colocation environments, which make it easier for them to attain and maintain accreditation.

However, when it comes to risk data of the BCBS 239 type, there are different elements at play. Lineage, quality, completeness and standardisation among them.

In helping reach target data architectures and IT infrastructures, we can conceive of a colocation model where cleansing and aggregation tools run side by side with encrypted customer data. Or where AI-based crawlers continuously check data quality and completeness, and automatically blow the source-and-location whistle when they detect inconsistencies. Or where acceptable risk thresholds are set, and entire lakes of data are monitored for mass conformity. The possibilities are endless.

Next normal

The pandemic is driving us towards a worldwide next normal; we all need to take account of what might be around the corner

Everything's accelerating

Future-gazing is a dangerous pastime. Not least because today's rate of change means it's no longer safe to peep around the corner for fear what's coming might be disruptive or even destructive. For some, agile methodologies like DevOps – getting products to market at speed by performing development, testing and operations as parallel rather than serial functions – add to the disquieting feeling of things running away with us.

None more so than financial services where people's natural inclination is to throttle back on innovation until every iota of regulation and compliance has been scrutinised and signed off in triplicate. A McKinsey blog from 2017 describes the cultural shifts necessary to overcome that caution. Now, raised cybersecurity risks have seen DevSecOps enter the lexicon. Firms most successful at extracting value from this evolved process have "an integrated operating model made up of teams of people including those from security and compliance with the full range of necessary capabilities" says another McKinsey blog from 2020.

Although DevSecOps was pioneered by digital-native companies the fact security, reliability and compliance considerations are built into every agile sprint has already seen its adoption by "a large financial services provider" states the 2020 McKinsey blog. More will surely follow as they come to understand accelerated time to market will be a defining aspect of the next normal.

> "That's where scenario planning comes in. Common in government and the military, financial services should take note and adopt a similar discipline."

Planning for high impact events

Returning to future-gazing, the preceding paragraphs are based on things we know. But what we don't quite know will become equally important in the next normal. A McKinsey blog from 2019 nicely captures the dilemma. It considers five low-likelihood, high-impact events and presents evidence that one or more is likely to emerge. We're not talking about asteroids plummeting through the atmosphere; higher-chance happenings than that. The McKinsey list includes:

- **A major tech company makes a big play on banking given consumers' desire for convenience, their deep daily relationships with technology giants, and the fact that distribution isn't a barrier to entry.**
- **An extreme geopolitical event occurs of the kind that only happens once every 50 years or so. For example, long-term global rivalries manifesting themselves in unpredictable ways, creating a completely new reality for banks.**
- **An apocalyptic cyberattack occurs where, for example, one morning customers of a global bank wake up to find their accounts empty. Panic ensues and brings a major economy's payments system to a standstill, paralysing the world market.**

Sound far-fetched? Well, yes, but it's possible one of the five events (or an alternative; note a pandemic wasn't listed) may occur over the next five years.

Furthermore, there's a gap between the extreme events postulated by McKinsey and run-of-the-mill market disruptions, which will most likely be a feature of the next normal. That's where scenario planning comes in. Common in government and the military, financial services should take note and adopt a similar discipline.

When it comes to data stability and security, Telehouse would bring experts with 30 years of operational expertise to the table. And, COVID-19 permitting, there would be few places better to hold such *in camera* sessions than our ultra-secure campus in London Docklands.

Why Telehouse?

A treasury of expertise at the centre of the finance sector

> "During pre-sales we'll freely share our key technical and operational people's expertise. And we'll continue sharing that hard-won knowledge throughout the customer lifecycle."

Uncompromising operational expertise

In the next normal, whatever it is, digital transformation will continue at the top of financial services to-do lists. They'll also have to consider still-developing regulations governing financial data security. Then there's the thorny issue of plain old business survival. Meanwhile getting to grips with atypical customer behaviour means pushing the innovative-thinking envelope. Those are reasons why choice of the right hosting partner has never been so important. And why you won't want to compromise, either, on operational expertise.

Talk to Telehouse. We've been honing our operational expertise for more than 30 years. All members of our mechanical, electrical and engineering teams know our facilities inside out. They understand what's required in technical terms, in the eyes of the regulators for each individual customer, and in respect of our internal processes.

We run a tight ship. Procedures are followed to the letter, like keeping maintenance schedules sacrosanct for an outstandingly resilient environment in which customers' systems can function at their very best. Vital for running highly secure standalone facilities or areas of shared occupancy, management and engineering processes (which we're willing to disclose for audit) are modified only with extreme caution. That way we ensure customers and stakeholders are 100 percent comfortable with our operating model.

Great value visible always

We never compete on price alone. During pre-sales we'll freely share our key technical and operational people's expertise. That ensures your entire systems design is performant and aligned with, or in advance of, industry best practice. And we'll continue sharing that hard-won knowledge throughout the customer lifecycle. That way new customers avoid costly mistakes, which could manifest themselves months or even years after the initial upload.

That's just one of the value statements that mean we'll never offer quite the lowest colocation costs on the market, as customers are reassured by built-in benefits at key service delivery points. Furthermore, we don't take risks. Arguably, some of our lower-priced competitors do. Our data centres are nearing the highest possible Tier 4 rating. Consider these two points:

- **Our physical security standpoint is unique. Telehouse data centres are protected by trained guards patrolling around the clock, infra-red systems and 600+ cameras monitored 24/7 (with CCTV recordings kept on file for six months). And our Docklands campus is the only one in London with unbreachable 360° perimeter fencing.**
- **We're also the only data centre provider with dual on-site electricity substations directly connected to UK Power Networks' pylons at 132kV compared with only 9kV from a local energy supplier. There are no intermediate step-down transformers or branch cables to fail. Proof that extreme redundancy is built-in and under our complete control.**

Such measures mean Telehouse offers world-standard physical security. Nevertheless, unusual major clients can have mighty unusual needs. As another added-value element, we'll unfailingly take those in our stride as part of the spec. Finally, as we've explained, we ruthlessly adhere to regulatory regimes and set industry best practice. Then we add our operational expertise, bringing customers true value for money along with peace of mind beyond value.

Capability

Exactly the right architecture for every circumstance

The global economy's engine thrums at the heart of every Telehouse establishment. With innumerable financial services firms worldwide choosing Telehouse – from large and small banks and capital market players to wealth managers, insurers and electronic payment arrangers – we must be doing something right. Safeguarding their vital digital assets in every one of the world's leading financial centres, we offer a nexus where they can interconnect with customers and partners virtually anywhere.

But it's not only that. We also have experts in our team who understand the workings of the world's financial services machine and can recommend exactly the right architecture for every circumstance. There's more. At Telehouse, security and reliability run through our veins. We build fortresses where systems and data are safe against cyber and physical threats. No coincidence our London Docklands Campus is just down the road from the Tower. And we stay abreast of industry developments now and in the future. That all means we – and our customers – are never, ever caught napping.

Speak to a Telehouse expert

At Telehouse we own the space where financial services enterprises come for elegance in their storage, compute and connect strategies. And it's where we bring our finest minds to bear on helping solve the issues covered in this eBook.

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