

2021



JT's Tech Trends for 2021

JT's technology leaders give their views on the future of technology and some of their hot topics for 2021 and beyond.

Tech Trends in a Changing World

Technology has always shaped aspects of our lives, but chances are you relied more heavily on technology in 2020 than ever before.

“You’re on mute!” must have been the year’s most used phrase in business. Concepts many of us had never heard of before like Zoom fitness classes and Doodle Learn were a defining experience of pandemic life.

So, what about 2021? With so much uncertainty still surrounding business, lifestyle and leisure in the coming year, what role will technology play for businesses and their customers?

We spoke to our global team of technology experts, to ask them what demands 2021 will place on the world of tech. This time last year, we could never have predicted what 2020 would bring for our industry. This time around, we’re more ready for the unexpected.

2021: Rethinking the Tech Revolution

A common theme arose when speaking to our team: **acclimatising**. After all, COVID-19 has permanently changed the trajectory of tech, along with the relationships between customers and businesses, and between businesses and their teams.

As such, some technologies have become less significant, while others have become far more essential than first imagined. It’s exciting to imagine how telecare might come into its own in 2021. And yet self-drive cars, an innovation we highlighted in last year’s tech trends ebook, has arguably taken a back seat to more pressing matters.

Connectivity and cybersecurity needs have also shifted. New enterprise models are shaking up both of these areas of business. Will companies spend much of 2021 adapting to this trend?



Global Trends



Working Smartly

When we moved into lockdown many of us were lucky enough to have the infrastructure to be able to go from the office to home and everything worked, but while the technology was there to make that happen, the manual on how to look after an entire company now working remotely hadn't been written. COVID gave us the opportunity to completely rethink the way we work.

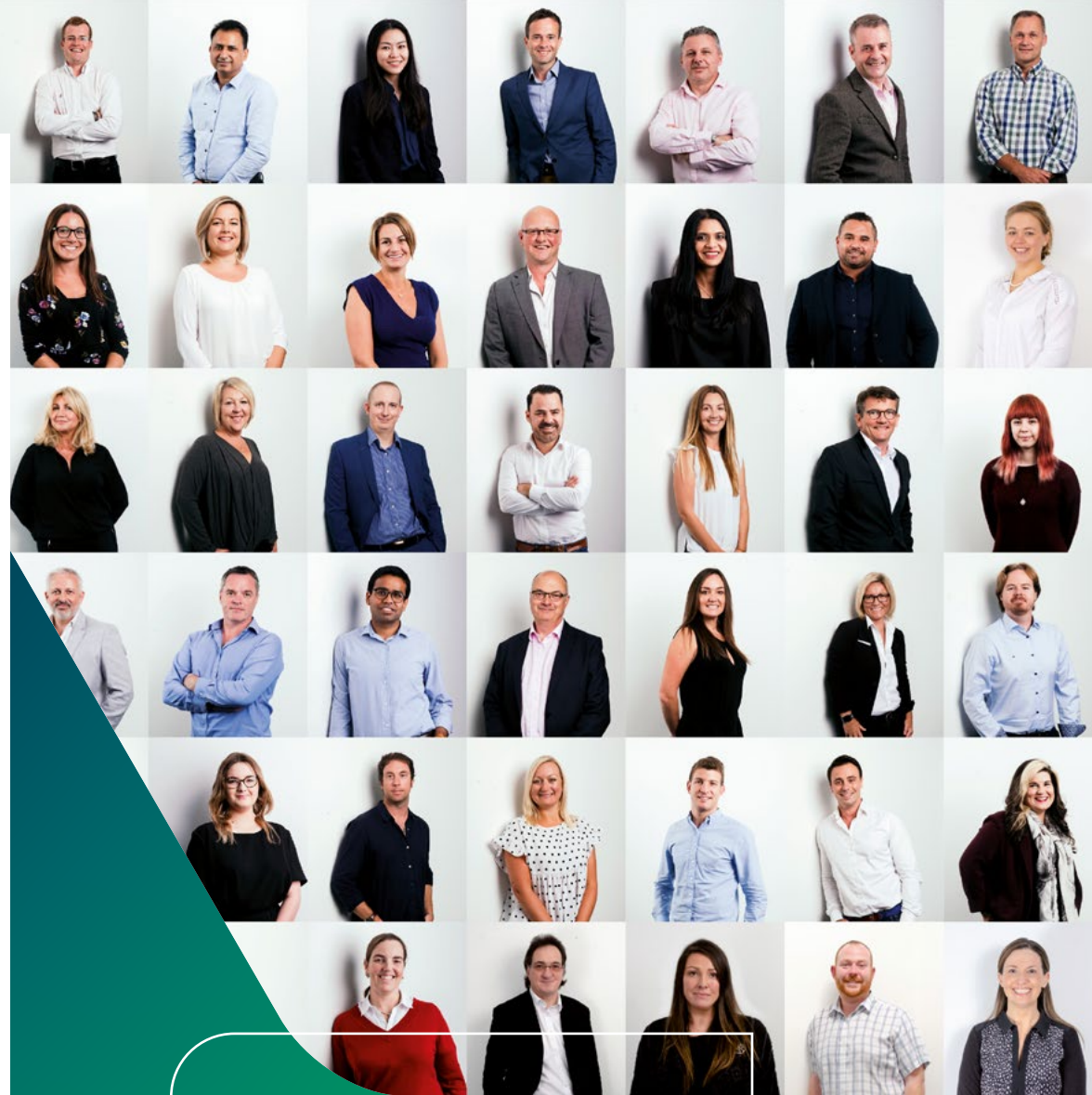
We had to learn quickly and listen to our people about what they needed and how they wanted to work. When JT introduced 'Smart Ways of Working' it was developed by working collaboratively with our teams to balance between flexibility and productivity.

We already know that by being flexible with hours, location and the surroundings our teams are working in, there will be benefits for their wellbeing, for the environment and for business productivity. Flexible working allows us to reduce our consumption of physical resources and our need to travel, but we also needed to provide a safe and efficient working environment for those that needed or wanted to come into the office.

Being a digital company, allows us to make the best use of the technologies available as we consider our future needs. As on-demand workplaces become the norm, businesses will need to start putting in systems in their buildings to track capacity, manage the numbers of people in the building and even check temperatures. All of these technologies are linked to IoT and in some cases are already in place using AI to manage our buildings and our homes. That means we can adapt these smart solutions to help us manage and support those who chose to work from home and those that come into the office.

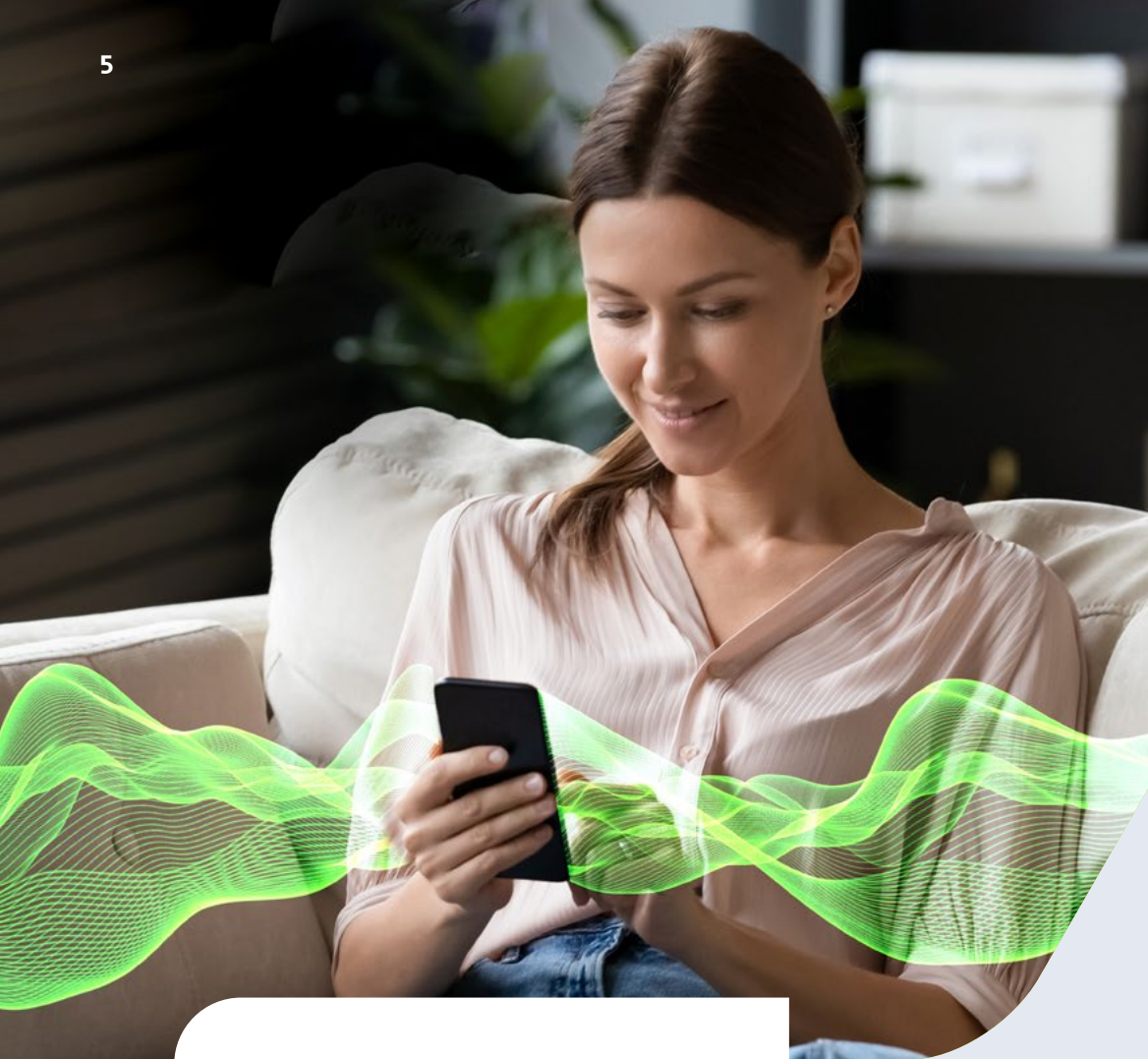
Businesses have had to be flexible in 2020. This will continue and technology will be at the heart of how that is delivered.

Nicola Reeves
Group HR Director



"We had to learn quickly and listen to our people about what they needed and how they wanted to work".





“These developments mean that we can take fibre beyond the front door, over the threshold and into homes and businesses”.

A Glimpse of the Future for Fibre

Ever since I started working on the project to connect fibre to every address in Jersey, I've waited for the opportunity to exploit its full potential. Lockdown demonstrated how our Jersey network didn't suffer the data bottlenecks that drained the bandwidth in other jurisdictions, and now that opportunity to take the concept further has arrived.

Acquiring Zero1 in 2020 was part of that long-term strategy, giving JT the ability to create the intelligent, connected homes of the future, saving customers money and meeting sustainability targets by reducing energy consumption making the very most of Jersey's full-fibre network. We also launched JT Total Wi-Fi with our partners Plume to provide our customers with next-generation Wi-Fi and new levels of control over the connectivity within their homes.

These developments mean that we can take fibre beyond the front door, over the threshold and into homes, businesses, providing seamless distribution as well as a raft of features like diagnostics reports, checks, parental protection and control.

It means our homes and workplaces can be fully smart by exploiting the hyperfast connectivity past the router. They will be able to host some of the exciting new technologies that will make our lives better and more connected. Thanks to the investments that we at JT have made, the technology that drives smarter homes will see a massive expansion.

It also means we can support the aims of our partners and our community in attracting the global leaders in technological innovation to trial their products and services here truly transforming the way we live and work.



Daragh McDermott
Managing Director, JT Channel Islands



Sustainability through Technology

2020 may have side-lined or delayed many of our plans, but it's clear sustainability remains at the top of agenda's worldwide, and for the growth of connectivity to be sustainable, telcos need to incorporate sustainability and green activity into the core of their corporate strategies.

While the concept of sustainability is not new, sustainability in telecoms has only recently become a key factor in many organisation's operations. At JT, we have defined our own strategy on sustainability which will underpin all that we do as a business for at least the next decade. We fully support the Jersey Government in its aim to become carbon neutral by 2030, whilst also supporting the governments within the jurisdictions in which we operate and our customers to do the same.

An area that is drawing significant attention is energy consumption, for us and other Telco's that means assessing things like the amount of power being used to run the data centres which many of us rely on to operate and backup our systems. Hydrogen fuel cells are one way that big tech companies say could make huge cuts into energy savings, and I expect to see a massive change as more businesses switch from having their own servers to using ones that can be hosted for them. Microsoft have been trialling an underwater data centre for the past 2 years, designed with cooling systems and renewable electricity from on-shore wind and solar as well as off-shore tides and waves. This project has so far showed a failure rate of one-eighth that of land-based data centres, making this something we might all be looking to in the future.

I also see our partnerships with other technology companies that share our values on sustainability growing rapidly in 2021. We are consciously working more and more with those that create products made from recyclable materials or those that are sourced responsibly. We are also making progress in using and selling products that produce less waste during the manufacturing and packaging processes. And to that aim, we hope to achieve our objective to become plastic-free in all the packaging we use and in the products we sell by 2025.

"At JT, we are defining our own strategy on sustainability which will underpin all that we do as a business for at least the next decade".



Tom Noel

Director of Corporate Affairs
and Sustainability





“AI, Machine learning, virtualisation and autonomous vehicles are just some that require the support edge computing can provide”.

Being at the Cutting Edge

If you are reading this, you will probably have already heard of and understand a bit about 'edge computing' and will know that it's going to be vital in the growth of real-time applications such as automation, virtual reality and the connected devices that are part of the Internet of Things.

All of those exciting new technologies require huge amounts of data processing power and are either hosted on servers based thousands of miles away or on the cloud. But that has meant slower speeds and latency issues as those channels get clogged.

This is where edge computing can make a huge difference. As it sits close to where the technology is being used rather than thousands of miles away it can process the real-time data quickly and doesn't suffer the latency issues that make applications and devices run slower.

Put simply, Cloud computing is where data is stored on other computers and accessed via the internet. Edge computing, where data is processed on smart devices (like phones), will take this to the next level. While the development of 5G will more than likely propel edge computing into the mainstream, it is the blossoming of IoT devices that will create the need for it. AI, Machine learning, virtualisation and autonomous vehicles are just some that require the support edge computing can provide.

That's why we see it as a new direction that JT can move into and move ahead of the game to drive this technology forward.



Barna Kutvolgyi

Managing Director, JT International



Re-shaping Strategies in a World of Constant Change

It has been quite a start to the new decade. The optimism that many businesses had as we moved into 2020 soon evaporated as carefully laid plans were abandoned or postponed to deal with the very real threat from the global pandemic.

2020 will be remembered for many things, the devastating impact on human life, countries, and communities, but also for the biggest turnaround opportunity in our lifetime. We must act on the important lessons this has provided about the value of prediction, action, and collaboration. As small and large businesses face unprecedented levels of uncertainty, they are discovering new ways to lead, build resilience, and develop stronger predictive skills, and the need to remain flexible as this continues.

With most of us having experienced working from home, harnessing the capacity of a fibre network like ours, for the benefit of a community, has been crucial. Niche activities such as eSports will become mainstream, especially as the larger sporting events lack the crowds of spectators they would normally attract. So, it is a natural step that the audience is moving online.

This places us as an operator in a key position to host and enable such events to a global audience.

Businesses are looking to accelerate their digital transformation on the back of a catastrophic year. Technologies such as AI and Machine learning, Autonomous vehicles and IoT will be powering that. The demand for this technology and the benefits it will bring to businesses, communities, health and education providers will grow significantly throughout 2021 and beyond.



Sonal Kapasi Strategy Director

NEW NORMAL JUST AHEAD



“We must act on the important lessons this has provided about the value of prediction, action, and collaboration”.



Tech Trends 2021



SD-WAN

A Better Way to Network

SD-WANs, or Software-Defined Wide Area Networks, have been growing in popularity among businesses in recent years. This is thanks to their simplicity to implement and their ability to lower overheads. SD-WAN provides a faster and more versatile network than conventional systems and incorporates a next-generation firewall for added security against cyberattacks. Using Cloud-based technologies allows our customers to save time and money.

Popularity is sure to grow at a much faster rate in 2021. That's because SD-WAN allows businesses to maintain enterprise-level networking with decentralised infrastructure. Teams can use a combination of home and office networks to form an SD-WAN, providing you with the security and quality you need.

SD-WAN will benefit multi-office and multi-site workplaces, connecting everyone across various locations via a dedicated secure link to their corporate network and systems all managed from a single point.

Recently, JT worked with local healthcare providers to supply them with secure, reliable SD-WAN at a critical point in the pandemic. This allowed them to review scans and x-rays remotely in real-time and in some cases whilst patients were still on the operating table. This meant they could offer potentially life-saving advice relating to patients direct to their colleagues without the need to be on the hospital premises.



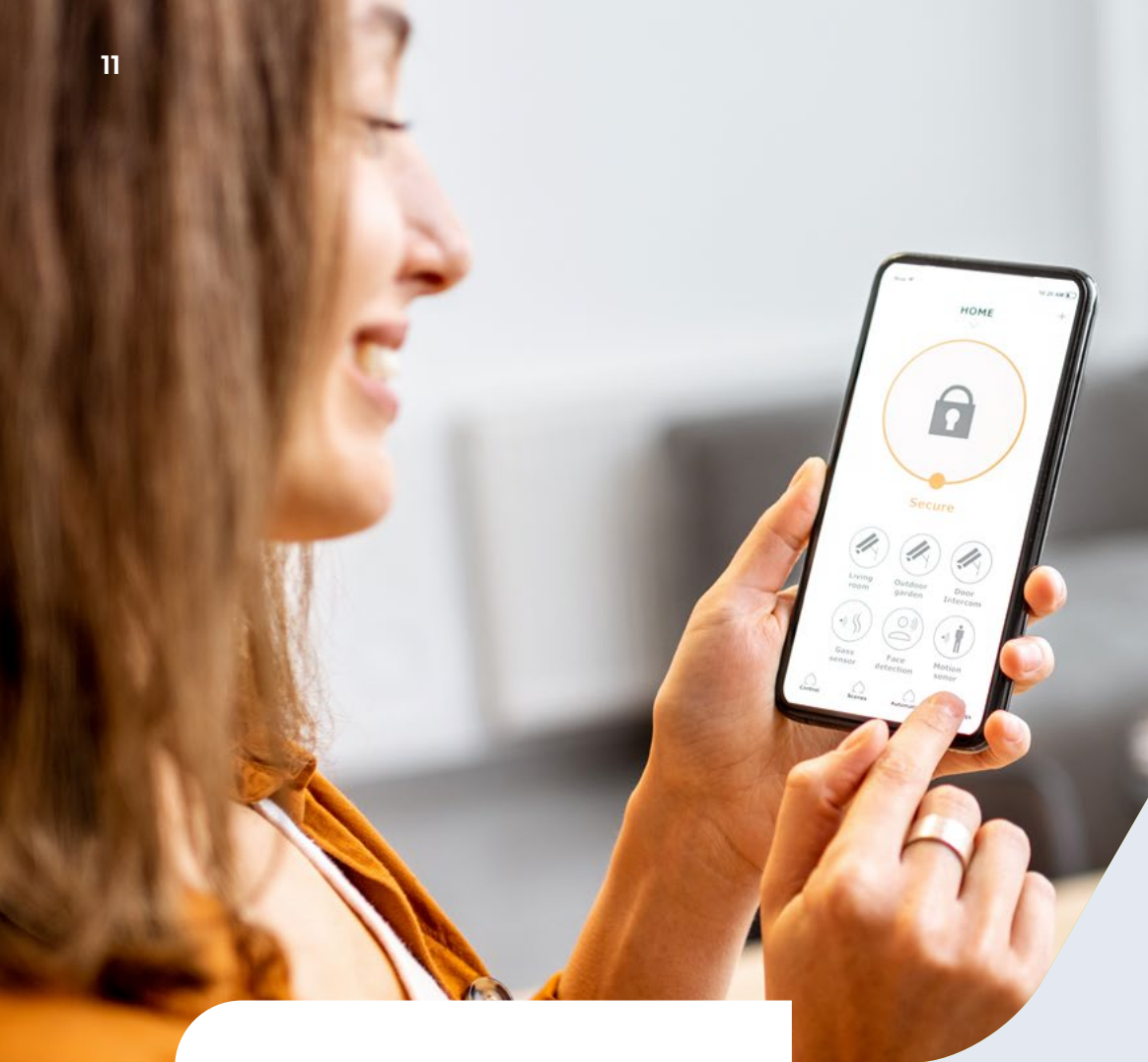
Katie Corbett

Director of Enterprise and Business Services



“Teams can use a combination of home and office networks to form an SD-WAN, providing you with the security and quality you need”.





“We expect technology to make our lives simpler, more convenient and safer. Above all, we want it tailored to our individual needs.”



Smart Automation

Intelligent Environments that Work for You

We expect technology to make our lives simpler, more convenient and safer. Above all, we want it tailored to our individual needs.

In 2020 Home Automation came to life. People began to rethink the way they manage the basics of home living (utility bills, home security, Wi-Fi networks) as well as entertainment and added extras. We've also seen a rise in awareness of energy conservation which has driven a demand to manage consumption through automation technology.

Home working became a reality almost overnight. But now that we have more time to reflect and plan, how can automated services help empower home, remote, and multi-office working in 2021?

JT is offering automation services for the home through Zero1. This includes creating custom automation systems for homeowners, designing intelligent environments, bringing automation into home entertainment, and helping homeowners become more environmentally friendly. Zero1's suite of corporate products help connect teams no matter where they are. With cinematic displays in meeting rooms it's never felt more realistic to host video conferences with multiple stakeholders.

I think that narrows it to a newbuild focus. Whereas reality most work is the opposite, working on what's already there and sorting networking etc. We will come to see smart-home technology as essential as electricity, refrigeration, heating or air conditioning, it will be like plumbing - expected and relied upon. There may be a lot of growth in, and talk of, smart homes over the past 12 months, but the home of the future will be intelligent.

2020 forced us to reconsider our home spaces and their suitability to our changing needs. 2021 will be the year to make those spaces work for us.

Paul Madden

Head of SMART Engineering Development





“You can think of cybersecurity as a series of doors to your business’s data and resources”.

Safe Remote Device Management for Multi-Office Working

At the start of 2020, IT teams faced the same sorts of logistical challenges as in years before. But when offices closed their doors in March, there was an immediate need for remote connectivity infrastructure that offered the same standard of service, support and security to employees.

Remote work will continue to be the approach of choice for many teams in 2021. Even if a coronavirus vaccine negates the need for social distancing, a vast number of employees will want to continue to enjoy the freedom and flexibility of working outside the office.

Embracing a long-term multi-location infrastructure poses several cybersecurity safety hurdles, such as keeping home networks secure, managing the risk to devices that are on the go, and keeping IP and other data private.

You can think of cybersecurity as a series of doors to your business’s data and resources. Any information stored digitally, and any device connected to the internet, is a unique doorway past your company’s security perimeter. Now that teams are working from home, this means that there are more doorways to secure than ever before, and companies have less control over those doorways now that they’re in employees’ homes.

Businesses and IT departments will need to invest in modern security solutions to overcome this challenge. Namely, solutions that were created for the cloud and that use strong, reliable authentication measures.



Andy Jarvis
Head of IT Operations



Fraud Protection Services

Strengthening the Finance Sector

Fraud, particularly identity theft, has been on the rise ever since the internet boom of the early 2000s. As people continue to upload more of their personal information across multiple accounts and devices, it becomes increasingly easier for hackers and fraudsters to find and abuse that data.

No industry has felt this more than the financial industry, where the motivation for criminal activity is apparent. Even something as simple as access to a person's banking app can give a hacker complete control over that person's finances – with life-changing consequences.

Like every other industry, the finance sector has seen a major shift to digital-first solutions and user expectations. This has also increased the risk to customers substantially, which is why modern fraud protection services are a must. Here at JT, we've spent years developing strong FPS tools for financial organisations. And in 2021, these systems will become even more critical.



Clare Messenger

Global Head of Fraud Protection Services

“Like every other industry, the finance sector has seen a major shift to digital-first solutions and user expectations.”





“JT Telecare will offer an expanding range of services to everyone, whether they are ageing, disabled or emotionally vulnerable”.

Technology Enabled Living - helping people to be looked after at home

The Jersey Care Model celebrates islanders' improved longevity while acknowledging that this results in greater and more complex healthcare needs. To maintain high standards, Jersey will have to “keep up to date”, and Telecare has a crucial part to play. Modern Telecare exploits fibre networks, AI, and an ever-expanding range of sensors and alarms to enable people to live safely and independently in their home for longer.

While not new to Jersey, the current Community Alarm Service only addresses the needs of those who are 65+ and infirm. Broader specialist needs are beyond its capabilities.

Modern Telecare can detect when a dementia sufferer wanders, a water or gas pipe leaks, or a smoke detector sounds. Alarms are handled by dedicated control centres, which can draw on an array of support services to ensure a positive outcome. The result? Peace of mind for service users and their families.

In 2021, JT Telecare will offer an expanding range of services to everyone, whether they are ageing, disabled or emotionally vulnerable. Together with Telehealth services, GPs, OTs and community nurses will be able to monitor patients remotely and even make a diagnosis. This will ease the pressure on our island's health system.

With its state-of-the-art communications infrastructure, Jersey will be a centre of excellence for Telecare and Telehealth.



Jon Collinson
Head of Product Development



Customer experience transformation - Omni-channel; the next generation

What was already a growing trend in digital customer interactions has vastly accelerated this past year, forcing “digital-first” into “digital-only” for many businesses. Online shopping is bigger than it has ever been, concerts, movie releases and even sports events have become digitised seemingly overnight. Having lived through such a seismic global technology shift, in such a short timeframe, it’s clear an ‘omni-channel’ approach is essential and a revolution in customer experience is on our doorsteps. This means meeting customer demand for seamless, fully integrated experiences when interacting with brands and supporting their drive to ‘self-serve’ using digital tools.

Customer expectations have not only changed, they’ve grown. They expect consistent information to be at their fingertips, regardless of the channel they choose to engage with. They want this in addition to in-person interactions, now there is a demand to “see” your business and feel like they are being given your full attention; often without leaving the comfort of their homes.

So today, what used to be service-led contact touchpoints as one part of the customer journey, are now the entire journey for many consumers.

The challenge for businesses, including our own, is to swiftly change, adapt and transform how we serve our customers. It used to be enough to have a 5-year digital transformation and investment plan; we now need to accelerate that and innovate faster. We see the need for seamless multi-platform brand experiences which ensure our marketing, service, sales AND vitally our help and support messages are directly served to the consumer, wherever they spend their time and however they choose to interact with us. Then we must meet the considerable challenge of ensuring that the customer experience they used to get in a shop, in person, on a phone, is replicated online, via an app seamlessly.

At JT we are using the power of technology to drive this forward, to stretch ourselves to meet customer demands better, faster, more seamlessly. We are using a blend of data, content, and technology to deliver a consistent experience and drive customer preference. Delivering Customer experience is never a destination it’s always a journey of continuous improvement and in 2021 it will be more vital than ever.



Tamara O'Brien
Group Head of Customer Experience



“It’s clear an ‘omni-channel’ approach is essential and a revolution in customer experience is on our doorsteps”.



Make 2021 Your Most Proactive Year Yet.

A neon sign displaying the year '2021' in a stylized, glowing font. The digits are colored in a gradient: the first '2' is blue, the first '0' is purple, the second '2' is red, and the '1' is yellow. The sign is set against a dark, textured background that resembles a brick wall.

In a way, the unpredictability of 2020 has made 2021 a much easier year to anticipate than most. The state of the world is still in the limbo of the pandemic, and 2021 will likely be a continuation of the trends and challenges that this has created in 2020.

As such, businesses have ample opportunities for proactivity. Investing in solutions like automation, SD-WAN, and remote security will give businesses the tools for safe, productive remote work. Telecare and home automation are sure to continue growing, and digital-first solutions won't be optional in 2021.

We look forward to supporting, advising, and partnering with you in the year ahead and hope that, along with all of the changes that are sure to come, 2021 finds us all in a better place this time next year.





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