



Driving digital transformation

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When technology is embedded seamlessly into care and support services, it can be transformative, helping people to live happy, fulfilled lives in their homes and communities. Digital tools can also be used to identify risk, prevent incidents from occurring and ensure quick and appropriate responses to avoidable events.

People at the Heart of Care: adult social care reform,
Department of Health & Social Care

<https://www.gov.uk/government/publications/people-at-the-heart-of-care-adult-social-care-reform-white-paper/people-at-the-heart-of-care-adult-social-care-reform>

The digital transition

Currently, most people have analogue phones that plug directly into a socket on the wall. As we see demand for technology such as laptops, tablets, and smart devices increasing, the UK's communications infrastructure is no longer able to cope.

We are all relying more on internet-based (digital) services and are benefiting, whether it be through more choice, value, greater availability, or convenience. Taking entertainment as an example, we have progressed from four television channels in the 1980s to an unimaginable choice of digital content, available whenever, wherever and on whichever device we want it.

This has resulted in our national telecoms infrastructure providers upgrading their networks, gradually replacing analogue lines with digital ones, which will require phones to be connected to a analogue telephone adapter (ATA) box or router provided by the user's communications provider (phone company). This modernisation is planned to be complete by December 2025, increasing system capacity and capability, as well as providing a foundation for future technological advancement.



The impact on the telecare sector

The transition to digital presents both opportunities and challenges to health, housing, and social care providers. Digital technology has the potential to transform service delivery, making it more person-centred, preventative, and efficient, enabling data and information to be collected, analysed and interpreted, improving services for citizens. Previously reactive services can become proactive and predictive, helping to target care where and when it's needed most.

Telecare technology has a key role to play in enabling services to be delivered in innovative ways, placing citizens at the heart of their decision making. It is relatively low-cost, helps citizens to stay living in a place of their choice for longer with increased quality of life, plays a part in avoiding hospital admissions and often prevents or at least delays the need for residential care.

Tunstall is focused on developing these solutions and services to support users, families and providers as we progress through the digital transition. Being able to predict when a fall may occur, or to understand why multiple fire alarm

calls have been raised for example, will provide reassurance, pre-empt issues from occurring and keep people safe, indicate deterioration in self-care, nutrition, or health, and enable an early intervention.

Opportunities include:



Improved safety

Live monitoring of devices enables quicker fault detection for increased system resilience. Where GSM devices are used as a back-up option, they switch to the strongest signal available



Better service provision

Faster connection speeds, enhanced call quality, greater reliability, and increased personalisation of services



More proactive approach

Automated routine administrative tasks, increasing service capacity to enable proactive services such as outbound calls to promote health and well-being advice



Increased efficiency

Simplified equipment installation, over the air upgrades and configuration make deployment faster and increase staff productivity



Integration and prevention

The potential for sharing data, interoperable platforms and predictive analytics to enable improved service integration and whole system approaches

Main challenges facing telecare

1. Scale of investment necessary by service providers

We recognise that digital telecare requires huge investment by service providers at a time when funding is increasingly restricted. Phasing investment means we can firstly focus on what needs to be changed now, moving on to replace or upgrade other equipment in due course.

Timelines for the switch to digital telephony vary by location as this is a rolling programme, and it has already started for some exchange areas.

Exchange areas gain advance notice of their switch through a process called 'stop sell', which means Openreach stops selling analogue connections (copper lines) to communication providers in that area.

Stop sell comes into effect in an exchange area when 75% of properties have fibre coverage through the telephone exchange.

A number of exchange areas are currently under stop sell, and this will roll out in the coming months, so that all exchange areas will have started their stop sell period by September 2023 ('national stop sell').

Care providers still have sufficient time to prepare their upgrading of hardware and software. As many digital solutions are not yet mature and are likely to be superseded as technology advances, the option remains for our customers to choose shorter-term hybrid solutions. This will facilitate phased investment and implementation of robust, proven solutions that fit with their digital strategy.

We recognise the importance of offering reliable, cost effective, standard-compliant, interoperable end-to-end trusted digital solutions.

2. Analogue product operability over IP (digital) networks

Tunstall is continuing to play a leading role in testing of analogue products on digital lines. We are working with all the major communication providers to test our equipment to the TEC Services Association (TSA) test specification to ensure our testing meets industry requirements.

Independent Living solutions

Existing telecare services and solutions will remain fully operational until properties are upgraded to digital lines.

Once a property is upgraded, telecare users are likely to need to plug their telephone and Lifeline units into an ATA supplied by their communications provider, rather than directly into the phone socket on the wall.

Most users should not notice any change in the way they make and receive telephone calls, and phone numbers will normally remain the same.

Tunstall customers can currently use Smart Hub units to deliver hybrid analogue and digital alarm calls and later in 2022, Tunstall will launch the Lifeline Digital home unit, enabling citizens to make alarm calls via the digital network as and when appropriate.

Group Living solutions

Where scheme providers have been notified that their telephone lines will be upgraded to digital, they should contact Tunstall in the first instance so we can offer advice on how to avoid incorrect system reconnection by the communication provider that could potentially result in connectivity issues.

In 2022, for digitally compatible systems, Tunstall scheme customers will be able to install a cost-effective IP Connector which will ensure existing systems continue to operate once networks become digital. Later in 2022, our next generation systems incorporating the very latest digital technology will become available, offering flexible upgrade paths.

Where current equipment installed is not digitally compatible, we recommend co-design of a digital transition strategy covering requirements and challenges and delivering best fit for our customers, their estates, and the people they support.



Alarm Receiving Centre (ARC) solutions

As the digital transition continues, ARCs will need become digitally enabled. We are supporting this through the digital development of our TSP software platform.

Our soon-to-be-released version of TSP will enable both analogue and digital alarm calls to be received and we are currently testing the IPACS, BS8521-2 (informally known as Now-IP) and CENELEC digital protocols to ensure they are standards compliant and ready for release.

Furthermore, we have a robust development plan to deliver innovative software upgrades that will enable services to be more person-centred, proactive and predictive.

Included in TSP are four applications which can work alongside a range of data, reporting and integration tools:

- **PNC:** alarm & event management
- **Service Manager:** back-office process automation
- **Field Force Manager:** field services management
- **Proactive Services:** enables proactive telecare



Customers have a choice of TSP installation approach. Increasingly, customers are preferring our proven Software as a Service (SaaS) installation. For customers who still prefer on-premise installation (physically at their ARC), we continue to support that.

At Tunstall, we recognise the importance of getting the right software solution in place, not just for now, but so that future services can be secured. We are passionate about working with customers to understand your challenges and developing the right solutions together.

3. Battery back-up

As ATAs and new digital routers provided by communication providers are not all planned to have battery back-up, many telecare devices could be impacted in the event of a power outage. Telecare users should be eligible to receive a free-of-charge battery back-up unit, subject to communication providers eligibility criteria, but the situation remains variable and evolving.

OFCOM's direction is that communication providers have an obligation to supply some form of back up in the event of power failure to 'vulnerable users' but it has not defined that this should meet the TSA defined industry standard of 24 hours. Tunstall is in discussion with communication providers and the Government regarding this issue.

Stakeholder engagement

Tunstall is working with the Department of Digital, Culture, Media and Sport, communication providers, the TSA and other influential organisations to highlight the challenges the telecare industry is facing. These include (but are not limited to) the definition of a vulnerable user, disconnection and reconnection of devices once lines are upgraded, battery back-up, the scale of the challenge, the cost of upgrading and call network hopping. Through a series of workshops, we will be seeking clarification on existing proposals, challenging implementation models, driving for improvements in how things are done and agreeing the best approaches for the citizens we look after and those working in our sector.

How Tunstall is helping telecare providers

Understand the scope and scale of the digital challenge

Helping to plan and implement an effective strategy to deliver digital solutions at pace.

Work across housing, health and social care

Offering end to end integrated and interoperable solutions, underpinned by 24/7/365 technical support.

Clarify local digital upgrade roll out plans

We offer guidance on communication provider upgrade plans, including stop-sell, by locality. We have a team of experts that can guide customers in implementing the most appropriate solutions for a variety of independent and group living settings.

Define upgrade and implementation options

We understand the transition is coming and recognise the importance of getting it right. Solutions available soon will provide more reliable connectivity, better protocol adherence, greater functionality and encompass lessons learned from other early adopters.

Build innovative procurement models and upgrade packages

We will work with you to build effective procurement models and upgrade packages that work for you. We understand flexibility is required and that what is needed at the end of a contract may be quite different to day one.

Ensure solutions maintain industry standards and deliver quality

We continue to undertake rigorous testing with communication providers and extensive field-based trials to ensure our standards-based products and services are fully market-ready and future-proof.

Mitigate cybersecurity risks

We recognise the importance of protecting data and information and using it in the right way and undertake extensive testing to make sure our hardware and software networks are robust and secure.

Maximise the opportunities presented by digital solutions

We are determined to maximise the opportunities that digital solutions present and will work with customers to realise the benefits both financially and socially.

Communicate effectively with citizens

We understand the demographics of telecare service users and that technology-based changes can be daunting. We have prepared guidance documents to help you deliver the right messages at the right time, so citizens fully understand the digital transition and are apprised of what they need to do and when.



Integrating technology into care

Digitisation is set to touch every corner of housing, health, and social care. Our approach has been to understand the needs of local populations, working in partnership with local authorities and commissioners to understand their challenges, co-designing solutions with them.

Technology has historically been seen as additional to service delivery, rather than a means of transforming models of care, leading to difficulties in integrating technology effectively. In some cases, there is still a misapprehension that technology is a replacement for human contact, rather than an enabler for better services.

Cultural change is required, which in turn needs early engagement. By empowering the population to be involved in service design, citizens become informed decision-makers as opposed to passive recipients of care, and commissioners and providers can invest in intelligent solutions which will evolve as population needs change and technology advances.



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Councils – and indeed national government – need to ensure that they are regularly drawing from a full range of expert advice and guidance when developing their digital strategies, particularly given the pace at which technology was advancing. There needs to be a joined-up approach across different strands of infrastructure roll out, with clearer and consistent language used so that informed decisions are made strategically.

County Councils Network / BT: Closing the Digital Divide, March 2022



About Tunstall

Tunstall has been at the forefront of technology innovation for the health, housing and social care markets for 65 years. Its pioneering software, hardware and services enable new delivery models which can transform services across the care continuum and empower people to live independently and with an improved quality of life.

Tunstall works with social care providers, healthcare services, housing and retirement living providers and charities in 19 countries, improving the lives of more than five million people, including those living with dementia, learning disabilities, physical disabilities and long-term health conditions.

Tunstall's innovation-led, person-centred Connected Care and Health solutions connect people and integrate services, enabling early intervention to avoid or mitigate adverse events, and improve outcomes.

As technology advances, we have the capability to not just react to events, but to predict and even prevent them, using data-driven insights. The Tunstall Cognitive Care approach can help to create intelligent, personalised care programmes and effectively allocate resources, making sure those in need have the right levels of support and reassurance.

Email hello@tunstall.com to find out more.

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