The Digital Shift and its Impact on the Telecare Sector in England

Study Report

November 2022

FarrPoint

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1. Executive Summary

1. Executive Summary

1.1 Background & Scope

1.1.1 The transition from analogue to digital telephone lines in the UK is taking place in a phased way up to the end of 2025. This 'digital shift' is relevant to social care as there is a risk that technology enabled care (TEC) and telecare devices that rely on analogue telephone lines for connection, communication and power back-up, may no longer work, or work reliably, following the digital shift.

1.1.2 There are an estimated 1.8 million people across the UK who rely on TEC and telecare[1], who could be at risk if their analogue telecare systems are not adapted or upgraded in time meaning their alarm calls may fail to connect to their monitoring centre. To mitigate risks, adequate planning is required by all organisations involved in the delivery and supply of TEC and telecare services[2], whether funded through health or social care budgets or privately funded.

1.1.3 To understand the impact of the digital shift on TEC and telecare services, NHSX[3] commissioned FarrPoint to complete this study to:

- identify key issues and risks associated with the digital shift in relation to adult social care;
- gain greater understanding of the adult social care sector's awareness of and current preparedness for the digital shift;
- map available upgrade options and the support available to aid digital preparations;
- explore opportunities to support wider digital transformation across the social care sector as a result of upcoming changes.

1.1.4 The study collected information from a range of stakeholders using online questionnaires and telephone interviews to understand the awareness of, and readiness for, the digital shift. Stakeholders engaged included:

- Telecare service providers[4]: Local Authorities, housing providers, health. These providers were using a mix of commissioning and contracting arrangements;
- Industry bodies representing social care and housing providers, and the telecare industry;
- Service user representatives;
- Suppliers, including telecare/TEC equipment and service providers, and telecoms providers.

1 Source: TSA Business Plan 2021/2022.

2 The term **telecare** is used in the report as a shorthand to describe both telecare and TEC solutions.

3 Since the study commenced this work now sits in the NHS Transformation Directorate. For consistency, this new name is used throughout the report.

4 The term **providers** is used in the report as a shorthand to describe all organisations that deliver or commission telecare services.

1.2 Telecare Service Delivery Arrangements

1.2.1 The study found that telecare services are predominantly offered by local authorities (at all levels), housing providers, and commercial providers.

1.2.2 These providers use a varied and sometimes complex mix of service delivery arrangements. Almost all providers have responsibility for sourcing and installing their own in-home alarm devices. Call handling arrangements are more varied, with a split between providers that receive and handle their own calls, and those that contract / commission another organisation to do it on their behalf. Where another organisation is used, this is most commonly a commercial provider, though there are also sharing agreements in place with other local authorities and housing providers.

1.2.3 All providers currently use alarm devices and Alarm Receiving Centre (ARC) solutions from a relatively small range of suppliers, with Tunstall having the largest market share.

1.3 Awareness

1.3.1 The study found consistently high levels of awareness of the digital shift and its impact on telecare amongst both providers and suppliers. However, we highlight that this result could be partly due to survey respondents being skewed to those organisations that were already engaged with the digital shift.

1.3.2 There is currently limited information being offered by telecoms and telecare providers to service users and the public on the digital shift and its telecare impact, meaning awareness amongst these groups is low.

1.3.3 When asked about their level of confidence in their ability to adapt their telecare offering to respond to the digital shift there is a marked difference between the responses from providers and suppliers. No providers described themselves as 'very confident' with a range of responses offered from 'confident' to 'very concerned'. In contrast to this, the overwhelming response from suppliers was that they were 'very confident'.

1.3.4 Around half of providers and suppliers have already experienced issues with their existing telecare service because of the digital shift. The most common issues relate to service users being migrated unexpectedly, of telecare devices not being connected to the digital line following a migration, and of analogue telecare devices not operating, or not being reliable, when connected to a digital phone line. Estimates of the level of failed calls seen as a result of these issues are typically around 5%, although the figures quoted varied. For comparison, recent TSA Commissioner Guidance[5] quotes a failure rate of 2.3% to 3.6% for alarm devices using analogue technology.

1.4 Readiness & Planning

1.4.1 Providers' plans for adapting their services for the digital shift are largely at a relatively early stage, with many plans still being developed, or yet to move into their implementation phase.

1.4.2 Plans and progress for upgrading ARC solutions / services are slightly better developed than for alarm devices. This is potentially due to the very large volumes of installed alarm devices compared to ARC solutions and the greater involvement of commercial suppliers in delivering ARC services.

1.4.3 Interviews with providers have highlighted differing opinions about the definition of a digital telecare service. This is particularly focussed on views about the appropriateness of using existing equipment and analogue adaptors (ATAs) as a long-term solution.

5 https://www.tsa-voice.org.uk/campaigns/digital-shift/social-alarms-systems-from-analogue-to-digital/

1.4.4 The current early stage of planning means most providers are unable to offer indicative dates for completing their digital migration and so it is not possible to estimate the proportion of service users that will be migrated to digital telecare by the time the digital shift of telephone lines is completed at the end of 2025. However, the early stage of planning combined with compounding factors, such as telecare equipment supply issues and resource limitations, suggest that there is likely to be a risk that a significant number of service users will not be migrated to a digital service by 2025. To support this view, some interviewees spoke about completing contingency planning to ensure their highest vulnerability service users were identified and prioritised in their migration plans so these users' telecare service remained operational and reliable after 2025.

1.5 Opportunities & Challenges

1.5.1 55% of providers offering alarm devices and 59% of providers offering ARC services see the shift to digital as an opportunity to change the nature of their telecare service and/or how it is delivered. Changes include improving the reliability of services and introducing new services, such as predictive, proactive and personalised care, closer integration with health services, and greater use of technology such as smart devices and data analytics.

1.5.2 Recurring themes in the challenges faced by providers when planning and implementing upgrades to respond to the digital shift include:

- Understanding where and when service users will be migrated to digital telephone lines;
- The conflicting messages received from different sources about the reliability and appropriateness of using analogue adaptors;
- The cost of digital telecare equipment, including recurring costs not currently incurred, and the difficulty developing business cases for investing in the service;
- Communication with service users, in terms of what to tell them and how best to communicate the message;
- Lack of digital maturity in the telecare marketplace leading to issues with solution performance, interoperability, and confused messaging.

1.5.3 In addition to these themes, other challenges highlighted included those relating to timescales, skills, resource, telecare technology, supplier capability, coordination and communication.

1.5.4 These challenges could result in consolidation of telecare service providers, with examples quoted in particular of smaller providers lacking the resources to complete the shift and ceasing to offer a telecare service.

1.5.5 Although awareness of the digital shift amongst service users is currently low, some opportunities and challenges were identified during service user stakeholder interviews. Opportunities are similar to those quoted by providers and suppliers, relating to the potential to use technology and data to widen and improve the telecare service offering. Concerns relate to the reliability of telephony and telecare following the shift, and the potential for scams and unnecessary upselling.

1.6 Additional Support & Guidance

1.6.1 The study has identified a range of additional support and guidance that can assist the telecare sector in making the digital shift and use the digital technology implemented to improve the range and efficiency of telecare services.

1.6.2 The support has been grouped into four workstreams, as summarised in Figure 1. The workstreams are closely connected and must be delivered as a coordinated package of support. They will be delivered by several groups / organisations, including the telecare and telecoms industry, providers, government, and other stakeholders.

1.6.3 Some of the support identified is already being delivered, potentially to a partial extent or to a subset of stakeholders. The support requirements are included to highlight the need to expand their scope or audience.

Figure 1: Overview of Support Workstreams

1.7 Next Steps

1.7.1 To implement the support identified by this study, we recommend that NHS Transformation Directorate:

- **Recognises the Time Critical Nature of the Digital Shift:** The shift of telephone lines to digital is underway and is already resulting in disruption to telecare services. Availability of resource, equipment and funding is likely to restrict the rate at which service users' telecare services can be migrated to digital technology, meaning implementation activity must start as soon as possible to minimise the number of service users left at risk from a potentially unreliable service.
- **Identify 'Quick Wins':** Related to the above, the support requirements should be reviewed with stakeholders to identify 'quick wins' where existing guidance exists that can be reused or shared more widely
- **Prioritise the Support:** The support requirements should also be reviewed to prioritise those that are most widely requested and/or provide the greatest support in the short term. A suggested list from the stakeholder engagement completed by this study is:
  - Robust processes between telecare and telecoms providers for identifying vulnerable users;
  - Providing greater clarity on where and when service users' telephone lines will be upgraded;
  - Increasing awareness of the digital shift amongst telecare service users and the public;
  - Provide definitive guidance on the use of analogue alarm equipment and analogue adaptors;
  - Assistance with development of business cases to justify investment in digital telecare.
- **Implement Processes to Monitor Progress:** The process of adapting telecare services for the digital shift is still in its relatively early stages. This means that further support requirements will emerge, and best practice will be developed as the process progresses. Regular reviews of the shift should be completed to monitor progress and ensure support requirements and best practice are identified and addressed/shared, as appropriate.
- **Recognise the Long-Term Change to Telecare:** The digital shift is the first step of a process of change for telecare services. The shift will put in place digital technology which provides a platform on which a range of new and innovative health and care services can be built. Some telecare providers already see these opportunities and are implementing them as part of their digital shift, others may implement this change at a later date. This study has highlighted a need for long-term support to ensure that the benefits that digital technology, data and integration can offer to telecare are fully exploited.

2. Introduction

2. Introduction

2.1 Study Background & Scope

2.1.1 The transition from analogue to digital telephone lines in the UK is taking place in a phased way up to the end of 2025, with some trial areas transitioning as early as 2022. This 'digital shift' is an industry-led change, with telecommunication providers completing the migration.

2.1.2 The digital shift is relevant to social care as there is a risk that technology enabled care (TEC) and telecare devices that rely on analogue telephone lines for connection, communication and power back-up, may no longer work, or work reliably, following the digital shift.

2.1.3 There are an estimated 1.8 million people across the UK who rely on TEC and telecare[7], who could be at risk if their analogue telecare systems are not adapted or upgraded in time meaning their alarm calls may fail to connect to their monitoring centre. Many people in receipt of commissioned or self-funded TEC and telecare-supported services live in a range of housing settings, including specialist accommodation such as extra care housing, sheltered or retirement housing, supported housing/independent living, or in their own or family homes.

2.1.4 To mitigate risks, adequate planning is required by all organisations involved in the delivery and supply of TEC and telecare services, whether funded through health or social care budgets or privately funded. With the support of the Department of Digital, Culture, Media and Sport (DCMS), Ofcom has provided advice to businesses and organisations on the actions needed to prepare for the shift.

2.1.5 To understand the impact of the digital shift on TEC and telecare services, NHSX[6] commissioned FarrPoint to complete this study to:

- identify key issues and risks associated with the digital shift in relation to adult social care;
- gain greater understanding of the adult social care sector's awareness of and current preparedness for the digital shift;
- map available upgrade options and support available to aid digital preparations;
- explore opportunities to support wider digital transformation across the social care sector as a result of upcoming changes.

2.1.6 This study examines preparedness across a range of stakeholder groups and organisations, including local authorities, TEC suppliers and service providers and the social care sector more widely.

2.1.7 The study provides NHS Transformation Directorate with evidence that will allow it and partner organisations to effectively support the social care sector to take action to prepare for the digital shift and mitigate risks. It will also allow NHS Transformation Directorate to promote investment in future-proof, interoperable TEC alternatives (as opposed to 'like-for-like' replacements of traditional telecare devices), and to develop strategies to plan for at-home 'care ready' solutions (e.g. where TEC can reduce demand for social care services or a move to more formal care settings).

6 Since the study commenced this work now sits in the NHS Transformation Directorate. For consistency, this new name is used throughout the report.

7 Source: TSA Business Plan 2021/2022.

2.2 Methodology

2.2.1 The information was gathered during September and October 2021 using a two stage methodology.

Online Questionnaire

2.2.2 An online questionnaire was used to obtain information from a broad range of telecare / TEC stakeholders.

2.2.3 The questionnaire was designed and publicised using support from an Expert Reference Group (ERG), which had membership designed to represent all stakeholders with an interest in telecare / TEC. This included representatives from adult social care providers, central and local government, health, housing, and the third sector. Telecare industry bodies and telecoms providers were also included to represent the views of suppliers.

2.2.4 Two variants of the questionnaire were produced: one for providers of telecare / TEC services, for example organisations that deliver services directly, or commission others to deliver them, and one for suppliers, meaning organisations (predominantly commercial) that offer telecare / TEC equipment and services. Copies of the questionnaires are provided in Annex C.

2.2.5 The questionnaires were promoted by the ERG members and resulted in 51 responses (32 providers and 17 suppliers).

Stakeholder Interviews

2.2.6 To provide a more in-depth understanding of views and plans for the digital shift, interviews were completed with a selection of stakeholders, chosen to represent a range of interests, including:

- Telecare service providers: Local Authorities (chosen to provide a view across English regions), housing providers, health;
- Industry bodies representing social care providers, housing providers, and the telecare industry;
- Service user representatives;
- Suppliers, including those selling telecare / TEC equipment and services, and telecoms companies.

Survey Responses and Reporting

2.2.7 The information gathered from the questionnaires and interviews is summarised in this report. All information collected during the study was done so on the basis of anonymity, so the results presented in this report are not attributed to any organisation.

2.2.8 We are grateful to the organisations and individuals that assisted with this study. An overview of the types of organisations that provided information are presented in Section 3.

2.2.9 Not all questions asked during the study were relevant to all participants. This means that the total number of responses obtained to questions varies. The report provides details of the number of responses the data relates to. Percentages presented in the report have been rounded so may not add to exactly 100%.

2.2.10 As detailed above, 51 questionnaire responses were received by the study. The total number of telecare providers and suppliers operating in England is not known. Given the significant number of local authorities, housing providers, and third sector organisations in England that could potentially be providing telecare services, it must be assumed that the responses received by this study represent a small proportion of the overall total. This raises the risk of sample bias and that the questionnaire responses are not representative. We reference this risk again at relevant points in the report.

2.3 Terminology

2.3.1 The terminology used to describe telecare services and changes to the telephone network can vary between organisations. A glossary of definitions is provided at Annex A, however, some key definitions used in this report are detailed below:

- **Digital Shift:** The move of telephone lines from analogue to digital (Internet Protocol, IP) technology. Several alternative terms are used by different organisations to describe this process, including:
  - Digital switchover;
  - All IP;
  - IP Voice;
  - Voice over IP (VoIP);
  - Public Switched Telephone Network, PSTN, switch off;
  - Analogue telephony switch off.
- **Telecare:** Telecare is used in the report as shorthand to describe both telecare and TEC services. This includes services provided in housing schemes, such as warden call systems. Telecare can also be referred to as community alarms, social alarms, or warden call systems.
- **Service User:** Also referred to as customer, client, citizen, and person. The term service user is used to describe the person whose wellbeing and health is monitored using a telecare service.
- **Home:** Home is used to describe both service users' own homes and a home-like setting, for example, residential or sheltered accommodation.
- **Alarm Receiving Centre (ARC):** Also referred to as a monitoring centre.

  In the event of a telecare alarm device detecting an event an alert is sent to an alarm receiving centre. Staff at the centre will receive the alerts and can speak to the service users, and arrange an appropriate response, as required.
- **Alarm Device:** Also often referred to as a social alarm, community alarm or lifeline.

  Equipment installed in a service user's home to provide a telecare service. The alarm device can send alerts to an ARC in the event of one of the sensors or triggers (also known as peripherals) connected to it being activated.

3. Overview - Telecare Services & Stakeholders

3. Overview - Telecare Services & Stakeholders

Prior to examining the data obtained by this study, this section provides context by describing existing telecare services, how they are delivered, and the stakeholders involved in service delivery.

3.1 Telecare Overview

3.1.1 An overview of typical current analogue telecare service delivery is shown in Figure 2: Overview of Current Telecare Service Delivery.

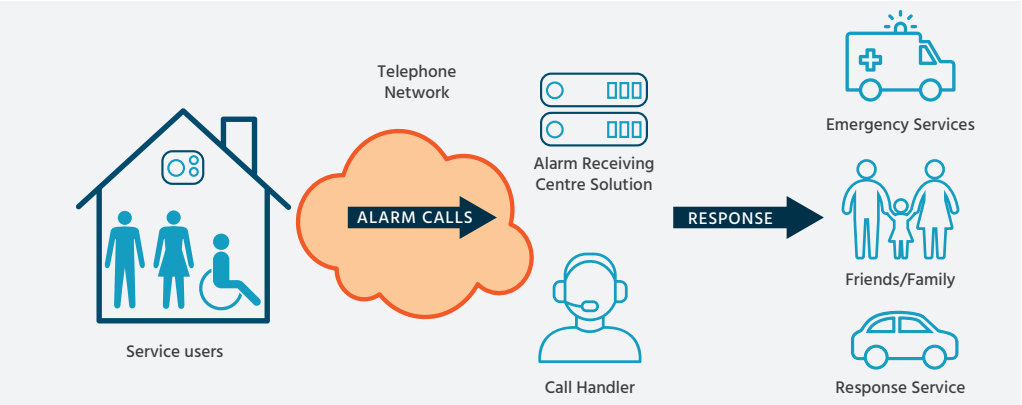


Figure 2: Overview of Current Telecare Service Delivery

3.1.2 Telecare service users have a range of telecare equipment installed in their home. The equipment installed is determined by the scope of the provider's service offering and an assessment of the service user's care and support needs.

3.1.3 The simplest (and most common) offering is a pendant and alarm device (often called "a button and a box") which allows a service user to summon assistance by pressing a wrist worn or pendant button. Depending on a service user's needs, additional sensors ("peripherals") may also be installed in the home, with a very wide range being available, such as smoke alarms, fall detectors, flood detectors, door sensors, panic buttons, etc. Once installed, any of these sensors/monitors can trigger an alarm call to the ARC.

3.1.4 All sensors/monitors are connected to an alarm device, either wirelessly or (typically in grouped schemes) wired. This alarm device is connected to the phone network, most often using a connection to an analogue telephone line, but mobile telephone networks can also be used.

3.1.5 If a sensor/monitor/pendant is triggered, an alarm call is made over the telephone network to an ARC. These alarm calls are answered on specialised ARC systems which identify the caller and the sensor/monitor that has triggered the call. This information is passed to a call handler who can speak directly to the service user to determine the support and response that is required.

3.1.6 If a response is required, this can take several forms depending on the nature of the incident that triggered the call and the scope of the telecare service offered. Friends and family can be alerted, or the emergency services called. In addition, some providers offer a response service that can visit and assist service users, if required.

3.1.7 From a digital shift perspective it should be noted in the figure above that the alarm device and ARC solution are the elements of the telecare service that are most likely to be connected to the telephone network and so are the elements impacted by the digital shift.

3.1.8 In addition to the services described above, telecare services can often include other support for service users, including the monitoring of activities of daily living, location tracking, preventative services, and telehealth applications. The lines of demarcation between these services are becoming increasingly blurred meaning that some elements of these services are detailed in this report where they have been highlighted by stakeholders.

3.2 Telecare Stakeholder Organisations

3.2.1 The stakeholder landscape for telecare services is relatively complex, comprising a wide range of service offerings, providers, contracting models, and suppliers. In some geographies there can be overlapping telecare service offerings. This report presents data on a range of these potential arrangements.

Telecare Providers

3.2.2 Telecare services are provided by a range of organisations, including:

- **Local Authorities:** Telecare services can be provided by metropolitan/unitary/county/borough councils, or at a district level. The arrangements vary from location to location.

  The service area within a council with responsibility for telecare also varies, most often sitting with a dedicated telecare team, or as part of social care, housing, or customer service teams.

- **Housing providers:** Telecare services, including warden call services, are offered by providers of a range of housing types, including sheltered / retirement housing, alms houses, assisted living / extra care housing or supported housing facilities. These services can be provided using dedicated grouped telecare systems serving a whole scheme, or dispersed alarm equipment provided to each resident.

- **Health:** Health trusts can offer or support telecare services, often working with and funding local authorities to support discharge and prevent bed blocking.

- **Third Sector:** Third sector organisations can also offer or promote telecare services.

- **Commercial Providers:** Commercial providers offer telecare services as a private pay consumer service.

3.2.3 These telecare providers can use a range of approaches for delivering services. Services can be delivered in house, as a commissioned service, or by partnering with another organisation.

3.2.4 Different elements of the telecare services can use different delivery approaches, meaning that a combination of organisations, internal team responsibilities, and contract approaches may be used by a single organisation. Examples of the different telecare elements include:

- Referral and assessment;
- In-home alarm and peripheral equipment procurement, installation and maintenance;
- Call handling;
- Response services.

Telecare Suppliers

3.2.5 Telecare suppliers provide a range of equipment and services. Offerings vary in scope, functionality and commercial arrangements, with a selection of the most typical described below. A supplier may offer one, some, or all the products and services listed.

3.2.6 As outlined previously, telecare providers can partner to deliver a telecare service, meaning in some cases an organisation can act as both a telecare provider and supplier.

- **Equipment:** Typical equipment offerings include:
  - In-home alarm equipment, including grouped scheme solutions, and the sensors/monitor peripherals to connect to the alarms.
  - ARC solutions.

  Standards exist to provide interconnectivity between equipment from different manufacturers. However, this does not apply to all elements of the telecare solution and some proprietary (manufacturer specific) protocols are also used, both of which can limit equipment compatibility.
- **Software as a Service (SaaS):** SaaS (or cloud) offerings are becoming more widely available in telecare. Typically, SaaS offerings relate to ARC solutions, used as an alternative to the 'on premise' approach that has been used historically where dedicated equipment is installed in a provider's premises. The move to SaaS means a change to both the technology and commercial model a provider uses.

  Other telecare offerings, such as activity of daily living, preventative services, telehealth, etc are also often offered as SaaS.
- **Telecare Services:** Telecare providers can often commission / contract an external supplier to deliver some or all elements of a telecare service. Models highlighted to this study included:
  - **Equipment supply and maintenance:** The supplier is responsible for supplying, installing, and maintaining alarm equipment and peripherals in the home.
  - **Call handling:** The supplier is responsible for answering telecare calls from service users and for organising an appropriate response.
  - **End-to-end service:** The supplier is responsible for all elements of the telecare service, this can potentially include referral and assessment, equipment installation, call handling, and providing physical response services.

Telephony Stakeholders

3.2.7 Telephony stakeholders also have an interest in the impact of the digital shift on telecare services. These stakeholders include:

- **Telecom providers:** Telecom providers are responsible for completing the move of their customers to digital telephone services. They are aware of the reliance of vulnerable customers on their telephone and telecare services and the need to minimise the risk associated with the digital shift.
- **Ofcom and the Office of the Telecommunications Adjudicator (OTA):** Responsible for monitoring the digital shift and developing guidelines for identifying vulnerable users.
- **Other telephony/telecare stakeholders:** Although the focus of this report is on the impact of the digital shift on telecare services, it is important to note that it also has an impact on many of the same organisations more widely. Councils, health trusts, housing associations, etc are assessing the impact of the shift on their telephony services more broadly, for example, desk phones, phone lines connecting lifts, fire panels, building management systems, etc. This work is being supported by organisations including, DHSC, DCMS, LGA, Ofcom, and others. Any guidance relating to telecare must align with this wider package of support.

3.3 Study Participants

Questionnaire Responses

3.3.1 51 organisations returned responses to the online questionnaire: 34 providers and 17 suppliers. Figure 3 shows the number and profile of the telecare providers returning a questionnaire. Figures are presented for each of England's 9 regions[8].

8 Regions are defined using Eurostat's Nomenclature of Territorial Units for Statistics, NUTS1. https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat

NUTS1 Region	Local Authorities	Housing Associations
North East	-	-
North West	5	-
Yorkshire and the Humber	-	-
East Midlands	4	1
West Midlands	3	-
East of England	3	1
London	9	-
South East	5	1
South West	1	1
Total	**30**	**4**

Figure 3: Number of Telecare Providers Responses Spilt by Region and Organisation Type

3.3.2 Suppliers who completed questionnaire responses delivered a wide range of telecare equipment and services:

- 14 suppliers (82%) provide telecare alarm equipment for installation in service users' homes. Suppliers also offered peripheral devices alongside their alarm offering including pendants, smartphone apps, GPS, fall detectors, Alexa integration and telehealth monitoring devices.
- 10 suppliers (59%) stated that they provide ARC equipment or services.

Interviews

3.3.3 The study completed 28 interviews with stakeholders to ensure a broad range of views were obtained, these included:

- 6 Local Authorities;
- 4 commercial equipment / service suppliers;
- 3 telecom operators / regulators;
- 5 trade bodies and professional networks;
- 2 charities representing the views of service users;
- 2 commercial providers;
- 2 housing associations;
- 1 academic organisation;
- 1 emergency service;
- 1 NHS body;
- 1 service user group.

4. Current Telecare Landscape

4. Current Telecare Landscape

This section provides details of the current telecare services offered by the providers and suppliers engaged by the study and how these services are delivered.

The information provides an insight into the range of service delivery approaches currently in use, in terms of the scale, delivery arrangements and technology used.

4.1 Number of Service Users

4.1.1 32 providers' responses included details of the number of service users they deliver telecare to, which ranged from 455 to 15,122 and with an average of 3,787. All figures quoted include both funded and self-funding service users.

4.1.2 Many of the telecare providers supporting larger numbers of service users are county and city councils, with smaller numbers supported at a borough and district council level and by housing associations. However, there are exceptions to this in the responses received.

4.1.3 Interviews with providers suggest that factors other than the population served can influence the number of service users supported, including the range of providers offering telecare in an area (with some areas having offerings from county and district councils, housing providers, and commercial providers), eligibility criteria, and charging arrangements.

4.1.4 This variation in the number of service users supported means that it is not possible to extrapolate the total number of service users in England from our survey results. The most commonly quoted estimate of the number of telecare service users in the UK is 1.8 million[9], an England only figure is not provided.

4.1.5 Of the 32 providers that supplied service user numbers, 19 (59%) also offered telecare to self-funding service users. These are service users that either self-refer to use telecare or are assessed as needing telecare but must fund it themselves given their provider's charging arrangements. The proportion of providers' service users that are self-funders varies between 7% and 100%, with an average from the responses received of 60%.

4.1.6 In addition to the telecare services above that are offered by providers (largely local authorities and housing providers), three suppliers that responded to the questionnaire had a direct to consumer telecare offering. These varied in scale, from 5,000 to 350,000 customers.

4.2 In-Home Alarm Equipment

4.2.1 All but one of the providers responding supply and install alarm equipment for their service users. One provider stated that they commissioned another organisation to do this on their behalf.

4.2.2 31 providers gave details of the alarm equipment they currently use, as summarised in Figure 4. Note that the responses received relate to both dispersed[10] and grouped scheme alarm equipment and that providers were able to list several manufacturers in their response.

9 Source: TSA Business Plan 2021/2022.

10 Dispersed alarm devices provide telecare to an individual in their home or home-like setting. These devices differ from a grouped scheme solution which provides telecare to multiple residents in a shared residence, such as sheltered housing.

4.2.3 Tunstall is the dominant supplier, with nearly every provider using their equipment. Tynetec and Doro also have a significant market share, with 4 other manufacturers' equipment being used by a smaller number of providers.

4.2.4 The questionnaire asked for details of the specific devices providers use. This shows a wide range of equipment types being used. The equipment is of varying age and with a mix of analogue only, mobile network (GSM) connected, and digital capable devices currently deployed.

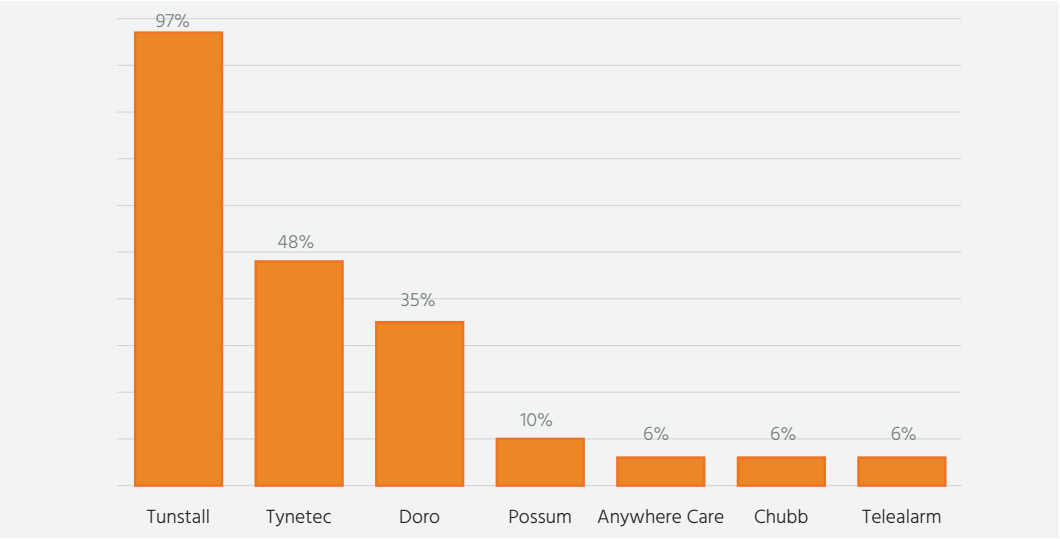


Figure 4: Alarm Device Equipment Currently Used (percentage of 31 providers stating they used each supplier's devices)

4.3 Call Handling Arrangements & Technology

Call Handling Arrangements

4.3.1 As detailed in Section 3.2, providers can use a range of approaches to deliver their telecare services. Of the providers offering details of their call handling, 15 (44%) received and handled calls from their service users while 19 (56%) used another organisation to handle calls on their behalf. Where another organisation was used, this included a mix of private sector suppliers and other public bodies including local authorities and housing associations. These responses are summarised in Figure 5.

4.3.2 This mix of call handling approaches was also reflected in the responses received from suppliers, with those that offered call handling services stating that they respond to calls on behalf of a range of organisations, with some suppliers handling calls for up to 150 different organisations.

4.3.3 7 (47%) of providers stated that they were using the digital shift as an opportunity to review their call handling arrangements. This included providers reviewing their existing call handling contracts, upgrading or replacing existing ARC solutions, moving to a cloud ARC solution, and including health monitoring capability.

4.3.4 The stakeholder interviews confirmed that some providers will use the digital shift as an opportunity to review call handling arrangements. Some interviewees stated that they had already seen examples of organisations changing their call handling arrangements and telecare service offering more widely because of the shift. These examples often related to smaller telecare providers that were struggling to find the resources required to shift their service to digital. Some of these organisations are seeking to either pass responsibility for call handling to another (often larger) organisation, or in some cases are ceasing to offer a telecare service and are referring service users to another provider. This trend is examined further in a later section of this report.

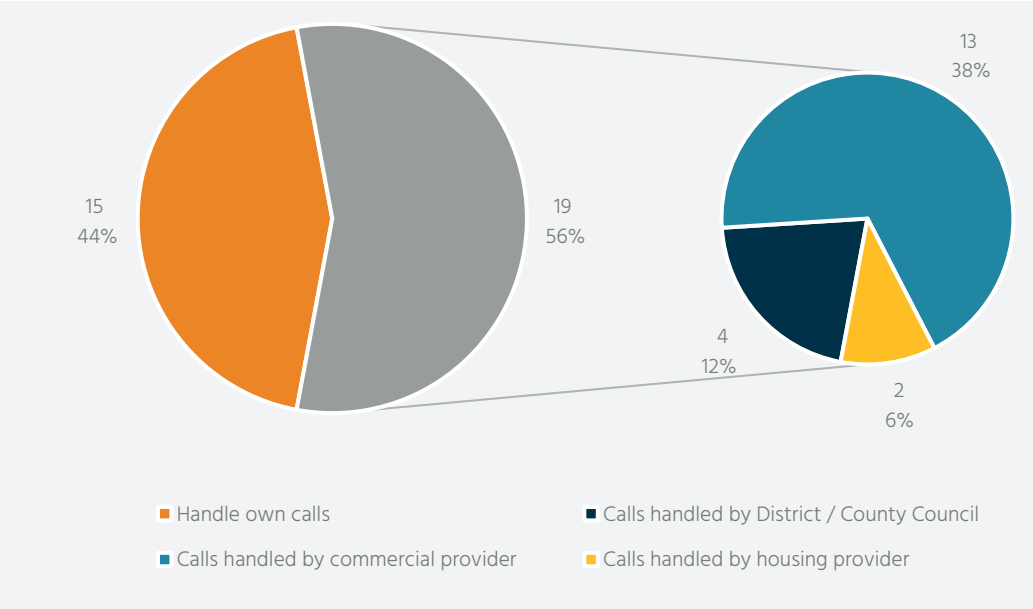


Figure 5: Call Handling Arrangements from Questionnaire Responses. Providers handling their own calls or using another organisation to handle calls on their behalf. Percentages of 34 responses.

4.3.5 Call Handling Technology

4.3.6 Of the providers that have their own alarm receiving centre, 11 supplied information on their current technical solution:

- 5 use Tunstall PNC, with versions ranging from 6.3 to 8.3;
- 5 use Legrand Care's (formerly Jontek) Answerlink;
- 1 uses Enovation's UMO.

4.3.7 Suppliers offering call handling services stated that they use a wider range of ARC solutions, including:

- Appello Carenet;
- Communicare Archangel;
- Enovation UMO;
- Legrand Care (Jontek) Answerlink;
- Tunstall TSP/PNC;
- Victrix Care Platform.

5. Digital Shift Readiness & Planning

5. Digital Shift Readiness & Planning

5.1 Digital Shift Awareness

5.1.1 Providers and suppliers were asked about their awareness of the digital shift of phone lines and its impact on telecare services. As shown in the figures below, the responses received indicate that there is a widespread awareness of the digital shift and its telecare impact. Very few responses indicated that providers/suppliers did not know the details of the digital shift and no respondents were unaware of the shift.

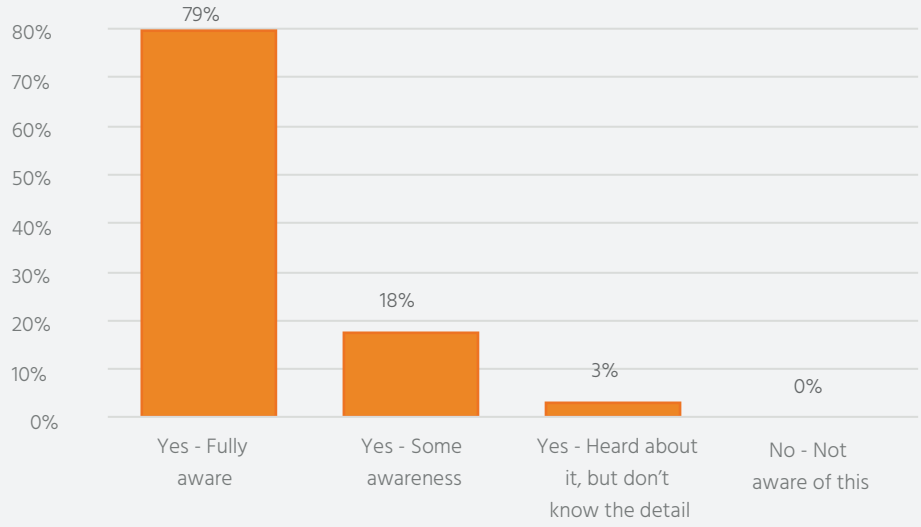


Figure 6: Responses from 34 Providers

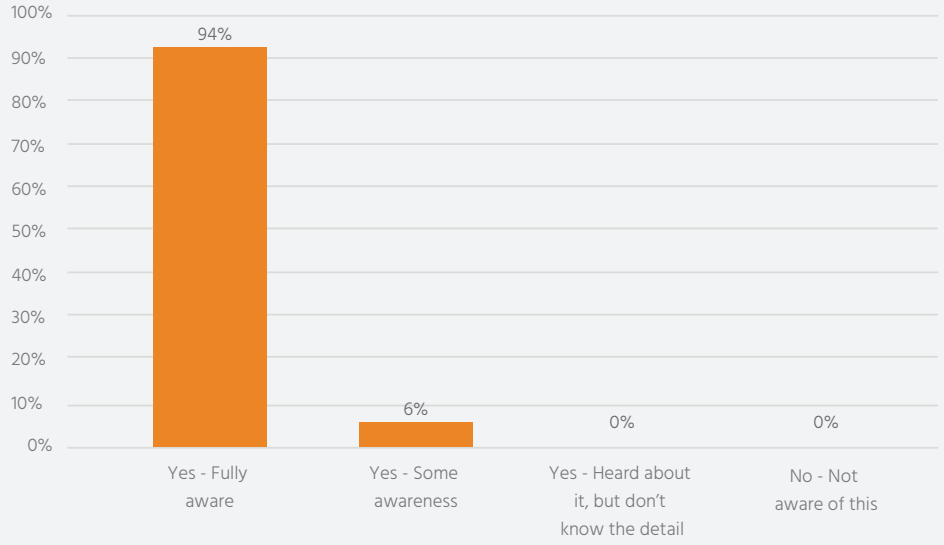
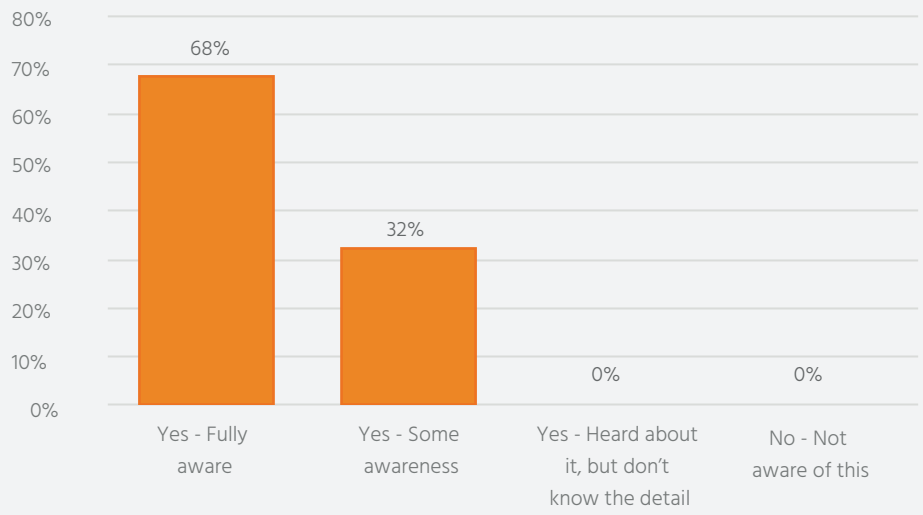
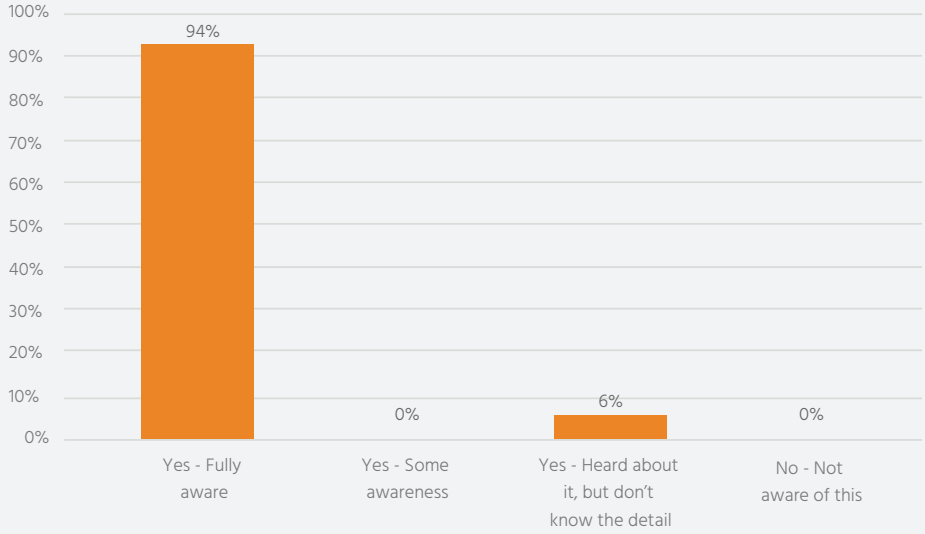


Figure 7: Responses from 17 Suppliers

Is your organisation aware of the move of telephone services to digital technology by 2025?

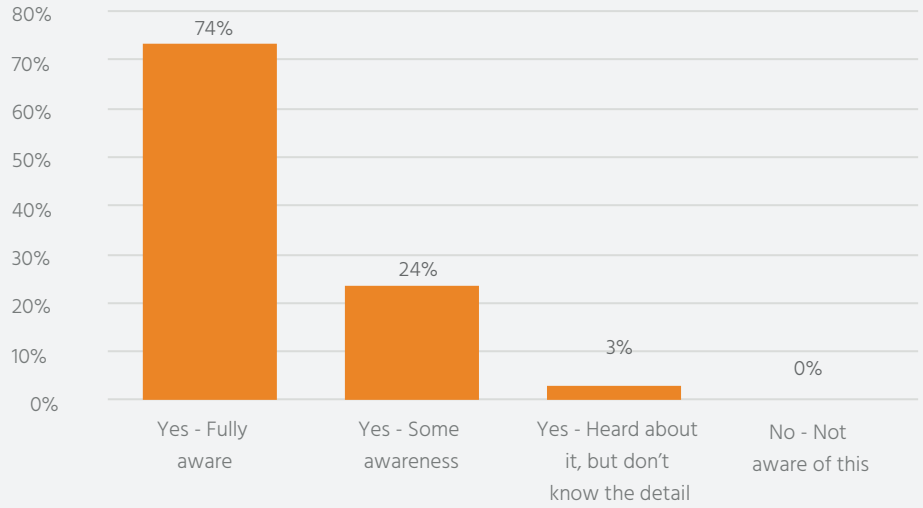


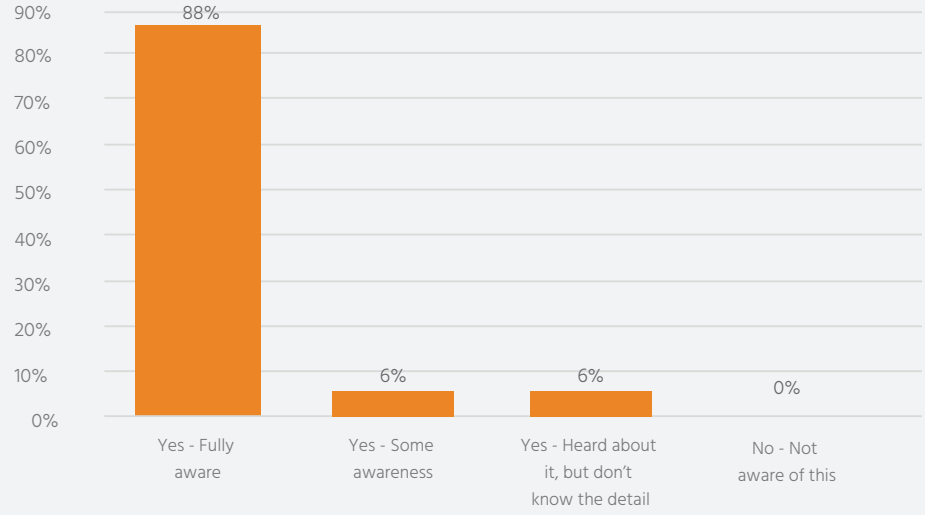


Is your organisation aware that the move of telephone services to digital technology has already started and that stop sell dates are being set by OpenReach after which no new analogue telephone services can be provided?

Figure 8: Responses from 34 Providers

Figure 9: Responses from 17 Suppliers





Is your organisation aware of the impact on telecare services from the move to digital telephone services?

Figure 10: Responses from 34 Providers

Figure 11: Responses from 17 Suppliers

5.1.2 It should be highlighted that this information is based on a relatively small survey sample. Given that the questionnaire participation was promoted under the banner of the digital shift and respondents self-selected, there is a risk that responses were received disproportionately from organisations that are already well engaged with the shift.

5.1.3 To provide some further evidence on the level of understanding of the digital shift and its impact, suppliers were asked to provide a view on their customers' level of awareness. This approach potentially captures organisations less engaged in the digital shift that did not respond to the survey. As shown in Figure 12 and Figure 13 this still indicates a high level of awareness, although not as high as the results in Figure 10 and Figure 11, with both showing a slightly higher proportion of organisations with low or no awareness. During stakeholder interviews some suppliers stated that providers had only become aware of the digital shift when they started to experience issues with the reliability of their existing analogue equipment.

5.1.4 It should be noted that the ARC / call handling supplier responses in Figure 13 include suppliers that offer consumer telecare services, meaning these results include service users as well as organisations that commission/procure services. Further information provided in questionnaire responses and during interviews suggests that the level of awareness and understanding of the digital shift and its impact on telecare is lower amongst service users, compared to telecare providers.

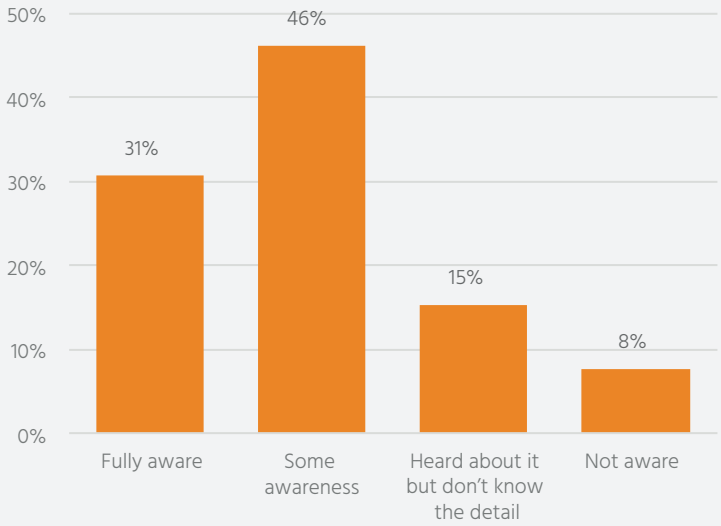
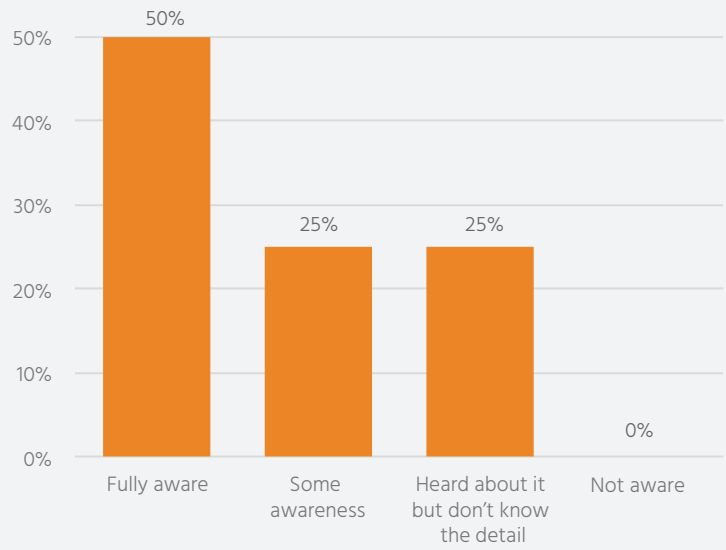


Figure 12: Responses from 13 Alarm Suppliers



How aware are your customers of the digital shift and the impact on telecare services?

Figure 13: Responses from 8 ARC/Call Handling Suppliers

5.2 Digital Shift Confidence

5.2.1 As shown in the previous section, there are generally high levels of awareness of the digital shift and its impact on telecare amongst suppliers and providers. The questionnaires also asked these groups how confident or concerned they were about the shift and its potential impact on telecare services and service users. The results from this question are shown in Figure 14 and Figure 15 and indicate a more mixed picture.

5.2.2 Suppliers have high confidence about the shift with only 6% of respondents indicating concern.

5.2.3 No provider said that they were **very confident** (versus 82% of suppliers), although 44% said they were **confident**. 12% were neutral and 44% were either **concerned** or **very concerned**. There was no strong correlation found between a provider's level of confidence and its size (in terms of number of service users), location, or sector.

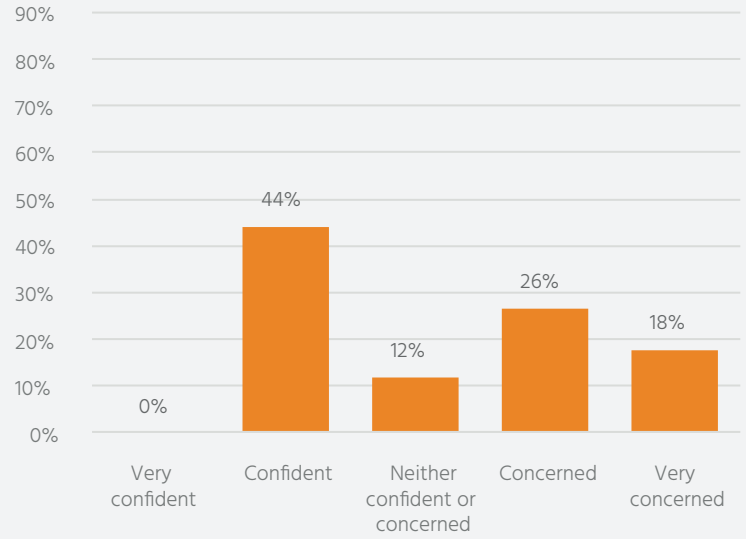
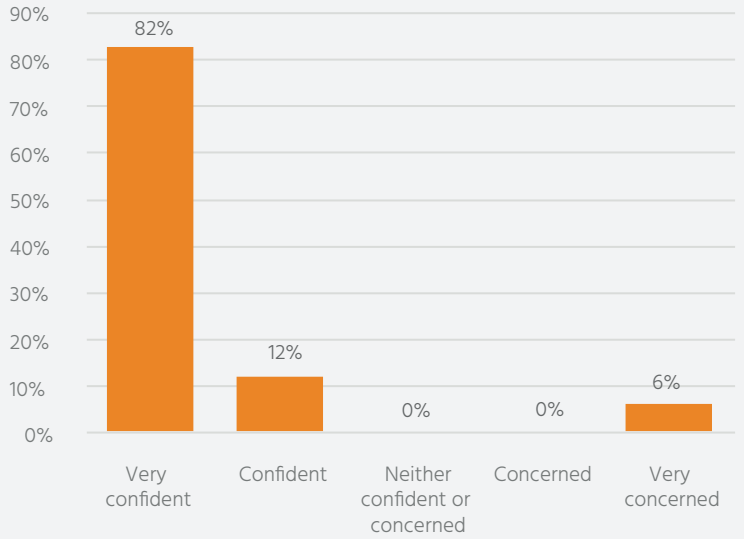


Figure 14: Responses from 34 Providers



How do you feel about the digital shift and how it may impact your telecare service and service users?

Figure 15: Responses from 17 Suppliers

5.2.4 Respondents were asked to provide reasons for their levels of confidence/concern. Themes from responses were:

Providers:

- Reasons for confidence:
  - Organisation already has a clear plan to complete the digital shift in place;
  - Provides an opportunity to improve telecare services;
  - Provides an opportunity to increase the use of technology in social care;
  - Digital technology allows the remote programming of alarm devices;
  - COVID-19 has increased awareness and acceptance of digital technologies in the delivery of health and care.
- Reasons for concern:
  - Concern service users will be left with an unreliable telecare service. Including concerns about use of analogue adaptors and the reliance of digital telephone lines on mains power;
  - Lack of clarity on telecom suppliers' plans for the digital shift;
  - Cost of digital devices and services, potentially including recurring SIM costs and replacement of peripherals;
  - 2025 deadline does not provide sufficient time to complete the shift;
  - Lack of clarity of impact of the digital shift on existing telecare alarm devices;
  - Lack of clear guidance and best practice;
  - Lack of awareness amongst senior management of impact of the digital shift;
  - Difficulty communicating plans and impact of digital shift to service users;
  - Resource required to replace analogue alarm devices;
  - Level of investment made in deployed analogue equipment, now potentially obsolete;
  - Difficulties obtaining digital telecare alarm devices;
  - Lack of reliable mobile network coverage.

Suppliers:

- Reasons for confidence:
  - Already have digital equipment / services available for sale;
  - Opportunity to broaden and improve telecare services. Including use of Internet of Things (IoT) devices, 5G, data analytics, etc.
  - Opportunity to shift to a preventative model of telecare, increase the involvement of families, and integrate with health services;
  - Digital telecare services are more reliable and allow issues to be resolved remotely.
- Reasons for concern:
  - Customers are struggling to make the shift to digital, this can be due to lack of funding, resource, skills, strategy, or planning;
  - Concern that customers' digital plans and action are not progressing fast enough to meet the 2025 deadline;
  - Concern that customers don't have the funding to complete the shift to digital;
  - Procuring digital services to deliver a like-for-like telecare service is a missed opportunity.

5.3 Information: Sources & Provided

Information Sources - Digital Shift

5.3.1 Providers and suppliers were asked to detail where they obtain their information on the processes and plans for the digital shift. Responses are summarised in Figure 16 (note the survey allowed for multiple sources to be quoted).

5.3.2 As can be seen, a range of information sources are used, with telecom providers, the TSA, UK Telehealthcare, and telecare suppliers featuring prominently. It should be noted that amongst the telecom providers, BT, Openreach and Virgin Media have been providing support and advice to telecare providers and suppliers for a number of years; this is likely to explain them being explicitly named and featuring prominently in the responses provided.

Information Sources - The Impact on Telecare

5.3.3 Providers and suppliers were also asked to detail where they obtain their information on the impact of the digital shift on telecare services. Responses are summarised in Figure 17 (again, the survey allowed multiple sources to be quoted).

5.3.4 As in the previous question, the TSA and UK Telehealthcare are used by both providers and suppliers. Outside these bodies, providers are largely reliant on suppliers, whilst suppliers rely on the telecom companies and Ofcom.

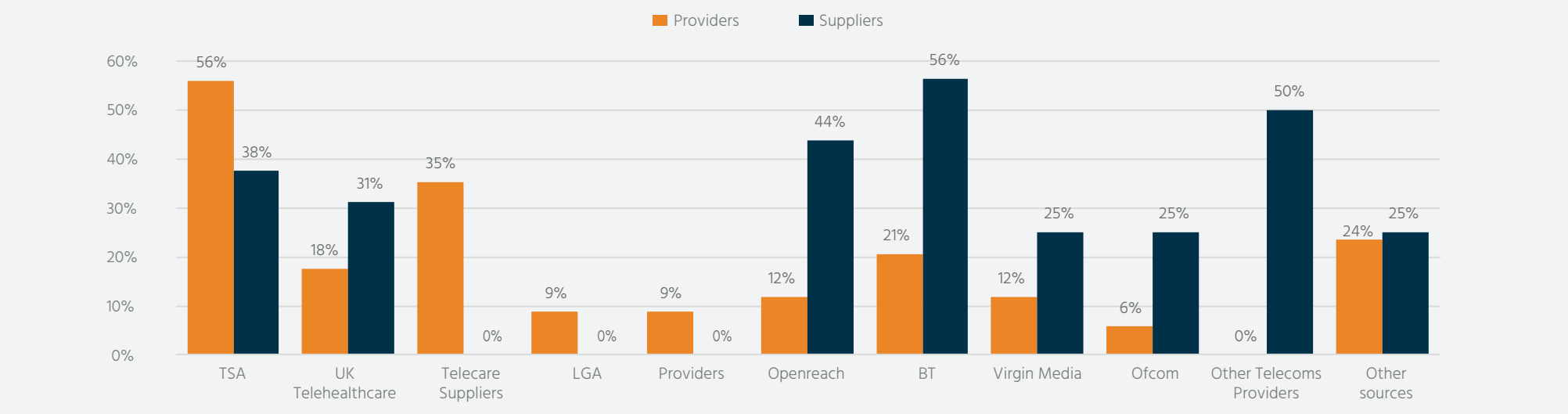


Figure 16: Where are you obtaining information about the shift of telephone services to digital? - Responses from 33 Providers and 16 Suppliers – Percentage of Respondents Selecting Each Option

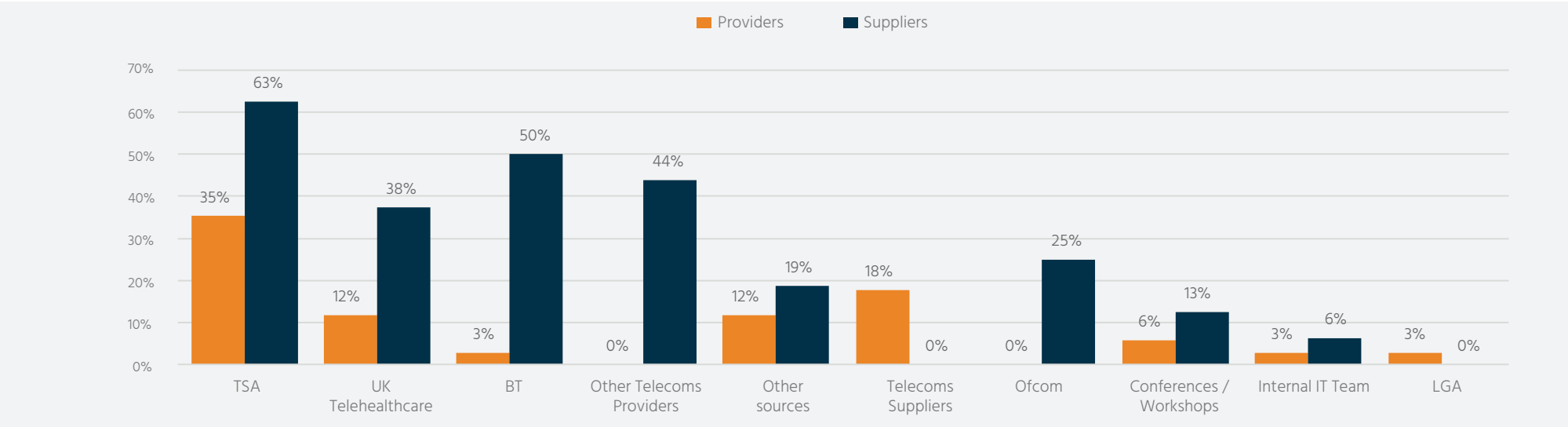


Figure 17: Where are you obtaining information about the impact of the digital telephone service on telecare? - Responses from 34 Providers and 16 Suppliers - Percentage of Respondents Selecting Each Option

Information Provided – By Suppliers

5.3.5 Suppliers stated that they provide a range of information to their customers (this relates to telecare provider customers, information provided to service users / consumer customers are described in the following section).

5.3.6 Information provided includes:

- Webinars, blogs, newsletters, social media posts;
- White papers, frequently asked questions, case studies and other briefing literature;
- Mailshots and emails to customers, and potential customers;
- Links to other sources of information, including:
  - Ofcom;
  - BT and other telecom providers;
  - Digital Office for Scottish Local Government;
  - Information on international experience and best practice.

5.3.7 In addition, some suppliers also provide focussed support and information to customers, if required/requested. This can include digital readiness audits and solution/equipment specific advice on the impact of the digital shift.

5.3.8 Some suppliers highlighted that they had experienced issues when providing information to customers as their advice is sometimes seen as not being independent, being skewed by commercial interests, or as a sales pitch.

Information Provided – To Service Users

5.3.9 The previous section highlighted that a relatively large amount of information and support is provided by suppliers to telecare provider customers. The information being provided to service users, including customers of consumer services is less extensive.

5.3.10 Questionnaire responses and feedback gathered during interviews suggests that many providers have yet to start offering information to end users. Reasons for this included:

- The need to better understand the impact of the digital shift on their telecare service offering;
- The need to procure a digital telecare solution prior to advising service users on upcoming service changes;
- Not knowing what information to provide;
- Not wanting to risk service users worrying about the reliability of their phone and telecare service.

5.3.11 Where information is provided to service users, this can include:

- Providing information during regular maintenance or service reviews visits/calls;
- Responding to service user questions/concerns when raised;
- General awareness raising;
- Providing links to other sources of information.

5.3.12 In addition to the information from telecare providers, other organisations, including telecom providers and charities, are also providing information for consumers. Although much of this information relates to the digital shift more generally, telecare devices are often referenced. Examples of consumer advice pages and the references to telecare include:

- Virgin Media[11]: "If you're using any connected devices (including care alarms) that use your phone line, you'll need to check with the manufacturer to make sure they're compatible with our fibre network phone line. We recommend those devices have their own battery and network back-up service."
- BT[12]: "If you have special services, like a monitored burglar alarm or health pendant, you'll need to let your provider know you're moving over to Digital Voice."
- AgeUK[13]: "Things that currently use the landline network - like telecare, personal alarms, burglar alarms and fax machines - will be affected by the change. If your device is relatively modern, it should still work fine - but older devices may need to be reconfigured or replaced."
- Openreach[14]: "If you have other devices or services connected to your existing phone line, like a care alarm, smoke or security alarm, you'll need to check whether the device or service will work over the new technology. You can check by contacting the company who provided the device or service or by checking the manufacturer's website."
- Future of Voice (TechUK)[15]: "There will be changes to the way some equipment works with the new technology. If you use devices that are connected to your home phone line such as telecare alarms, emergency pendants, dialysis machines and telemetry devices, contact the provider of those devices to check whether they will be compatible."

11 https://www.virginmedia.com/help/home-phone/virginphone/switchover

12 https://www.bt.com/help/landline/what-is-digital-voice-and-how-can-i-get-it-

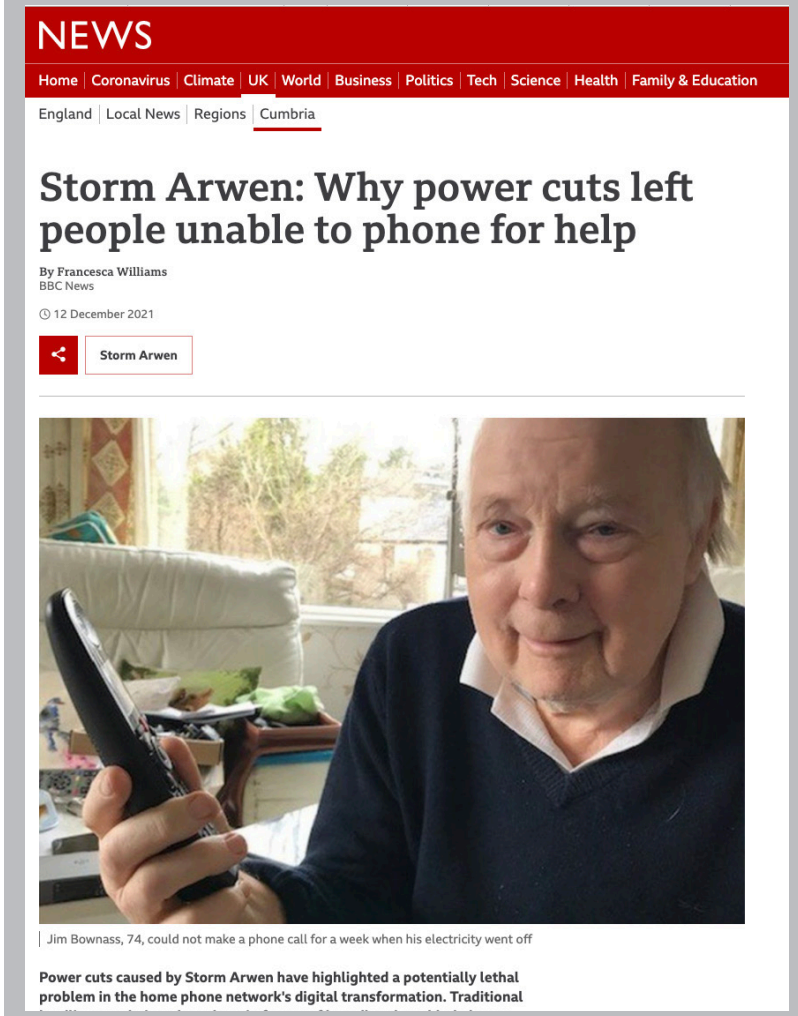
13 https://www.ageuk.org.uk/information-advice/money-legal/consumer-issues/changes-to-landline-telephones/

14 https://www.openreach.com/upgrading-the-UK-to-digital-phone-lines

15 https://www.futureofvoice.co.uk/home-phone-users/

5.3.13 As can be seen from these examples, much of this advice refers service users back to their telecare service provider meaning providers need to have messaging and guidance in place to respond to these enquiries.

5.3.14 There have been some stories in the media about the digital shift[16], particularly about the potential impact on vulnerable customers, though generally media coverage has been limited to date.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England | Local News | Regions | Cumbria

Storm Arwen: Why power cuts left people unable to phone for help

By Francesca Williams
BBC News

12 December 2021

Storm Arwen

Jim Bownass, 74, could not make a phone call for a week when his electricity went off

Power cuts caused by Storm Arwen have highlighted a potentially lethal problem in the home phone network's digital transformation. Traditional

Figure 18: Example Media Coverage of Digital Shift. Source: BBC News

16 https://www.bbc.co.uk/news/uk-england-cumbria-59564480
https://www.dailymail.co.uk/money/bills/article-10198081/BT-warned-phone-shake-puts-vulnerable-risk.html
https://www.thesun.co.uk/money/16860347/bt-axe-landline-phones-sparking-fears-elderly-vulnerable-households/
https://metro.co.uk/2021/08/16/traditional-landlines-axed-by-2025-as-all-uk-phone-calls-go-digital-15097358/

5.4 Digital Shift Progress & Plans – In-Home Alarm Equipment

5.4.1 Providers were asked to supply details of their current level of digital shift planning and readiness. Recognising that providers can use different delivery arrangements for in-home alarm equipment and ARC equipment/services, questions were asked about planning/progress for these elements separately. The information below relates to in-home alarm equipment.

5.4.2 Providers indicated their current level of digital planning and readiness by selecting one of 6 statements. These ranged from having no plans in place through to having completed the rollout of digital alarm devices. A Red, Amber, Green (RAG) status was assigned to each of the statements to provide a summary of the current level of progress and readiness. The statement options and associated RAG status are shown in Figure 19.

Option & RAG Status	Statement
A	We currently only offer analogue telecare services and have no project or planning in place to move service users to digital telecare.
B	We currently only offer analogue telecare services. We are in the early stages of digital telecare planning but currently have no firm plan or timescales for the move of service users to digital telecare.
C	We currently only offer analogue telecare services. We have an outline plan and timescales in place for the move of service users to digital telecare. We are currently putting the necessary approvals and resources in place to allow us to implement the plan.
D	We currently only offer analogue telecare services. We have a plan, timescales, and the required approvals and resources in place to move service users to digital telecare.
E	We currently offer both analogue and digital telecare services and have a plan, timescales and the required resources in place to move all service users to digital telecare.
F	We have completed the move of all service users to digital telecare.

Figure 19: In-Home Alarm Equipment - Statement Options Used to Classify the Level of Digital Planning and Readiness

5.4.3 Providers' responses are shown in Figure 20. As can be seen, only 3% (1 provider) indicated that they had no planning in place. 35% (11 providers) have early stage plans. A total of 39% (12 providers) have more advanced plans in place (stages C and D) but have not yet commenced a rollout of digital devices. 23% (7 providers) currently have live digital telecare services and are migrating service users. No providers have yet completed the move of their service users to digital telecare.

5.4.4 Providers were also asked to detail their timescales for completing the rollout of digital alarm devices. Only 6 providers offered a date, these ranged from January 2022 to December 2024.

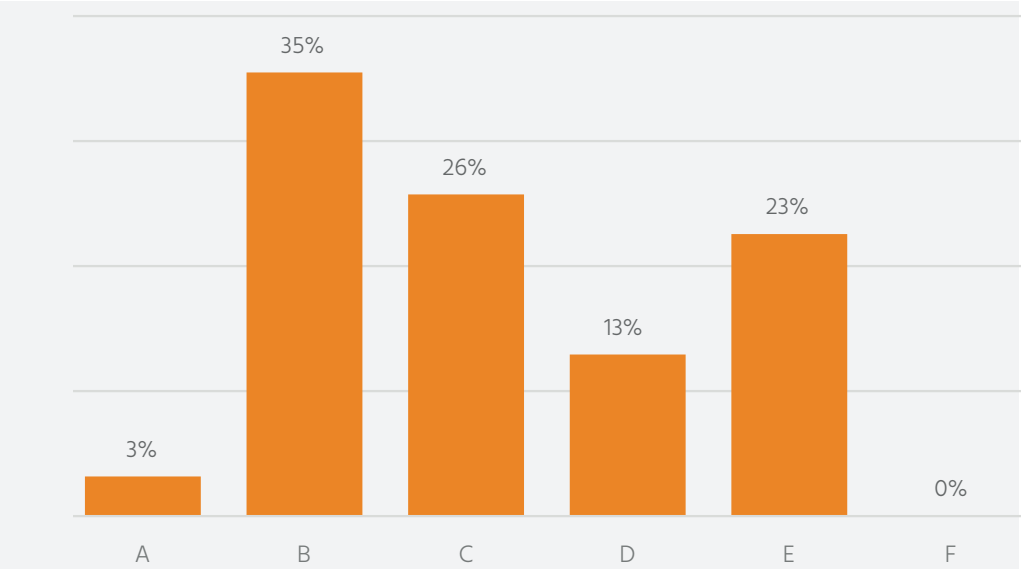


Figure 20: In-Home Alarm Equipment – Providers' Digital Planning and Readiness - Percentage of 31 Providers Selecting Each Option

5.4.5 Providers were asked to detail the main activities and milestones that formed their migration plans, responses included:

- Working with alarm suppliers to determine which existing devices will continue to function after the digital shift;
- Ensuring vulnerable service users are flagged to BT / Openreach;
- Ensuring service user and equipment inventories are up to date;
- Developing a procurement approach and budget to replace analogue equipment;
- Installation of analogue adaptors;
- Contracting / commissioning a new provider;
- Upgrading the ARC to receive calls from digital alarm devices.

5.4.6 Providers were asked what sources of information they were using to assist them in developing their digital migration plans. The responses to this question contained a very similar list of sources as detailed in Section 5.3.2 and so are not detailed again here.

5.4.7 Rollout timescales were also discussed during the interviews with stakeholders. Several stakeholders stated that risk management / contingency planning activity was being completed to ensure that the most vulnerable service users were identified and prioritised in the rollout of digital equipment.

5.5 Digital Shift Progress & Plans – Alarm Receiving Centre

5.5.1 Data on providers' current level of digital shift planning and readiness for their ARC solution/service was collected in a very similar way to in-home equipment. A different set of readiness statements were used, as shown in Figure 21, due to the different digital migration process associated with this element of the telecare service.

Option & RAG Status	Statement
A	Our ARC solution can currently only support analogue alarms. We have no project or planning in place to digitally enable our ARC solution.
B	Our ARC solution can currently only support analogue alarms. We have a project and plan in place to digitally enable our ARC solution but have not yet started to implement digital.
C	Our ARC solution has been upgraded to a digital capable solution – but we have yet to make changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls) to enable us to receive digital telecare connections.
D	Our ARC solution has been upgraded to a digital capable solution and we have made the necessary changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls). We can receive digital telecare connections and are currently in testing prior to offering digital telecare to service users.
E	Our ARC solution has been upgraded to a digital capable solution and we have made changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls). We can receive digital telecare connections and are currently providing digital telecare to service users.

Figure 21: ARC Solution/Service - Statement Options Used to Classify the Level of Digital Planning and Readiness

5.5.2 Providers' responses are summarised in Figure 22. As shown, 21% (3 providers) indicated that they have no planning in place. 7% (1 provider) has early stage plans. 36% (5 providers) have procured a digital ARC solution but need to make a range of other IT changes before they can receive digital telecare connections. 7% (1 provider) has implemented and is currently testing their digital ARC solution. 29% (4 providers) currently have a live digital telecare ARC.

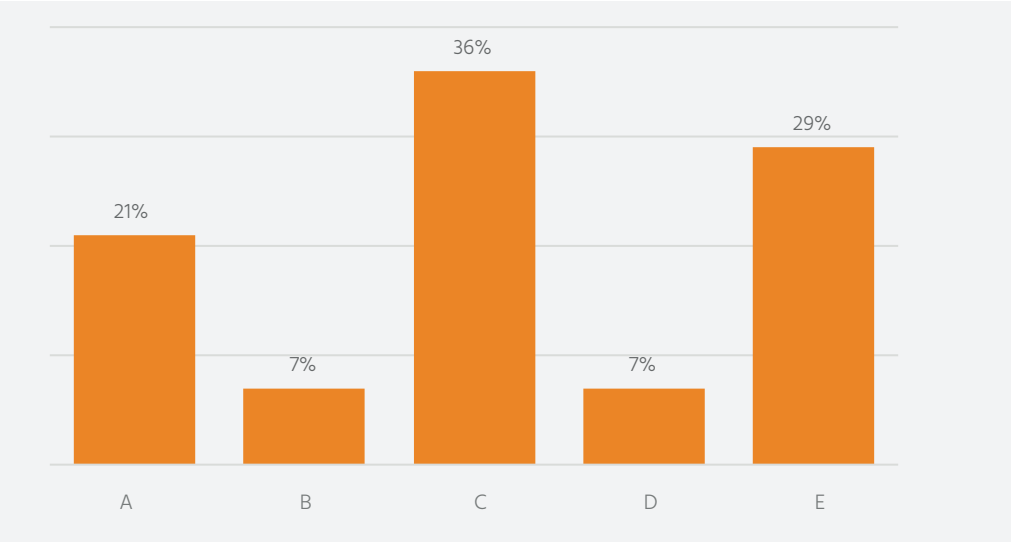


Figure 22: ARC Solution/Service – Providers' Digital Planning and Readiness - Percentage of 14 Providers Selecting Each Option

5.5.3 The 5 providers that have a live digital ARC solution have 1,420 active digital alarms connected to them. Of these providers, the highest number of digital alarm connections is 700, representing 5.8% of the total number of alarms connected to that ARC.

5.5.4 Providers were asked to detail their timescales for completing the upgrade of their ARC solution to digital. No responses to this question were received.

5.6 Analogue Adaptors

5.6.1 The survey asked several questions relating to the use of analogue adaptors (ATA). Whilst this may seem like a niche technical issue, it is fundamental to many organisations' definition of what it means to offer a digital telecare service and their view on their level of preparedness for the digital shift.

5.6.2 To put the survey responses in context, Figure 23 provides a high level overview of potential telecare alarm deployments using analogue adaptors and digital connections.

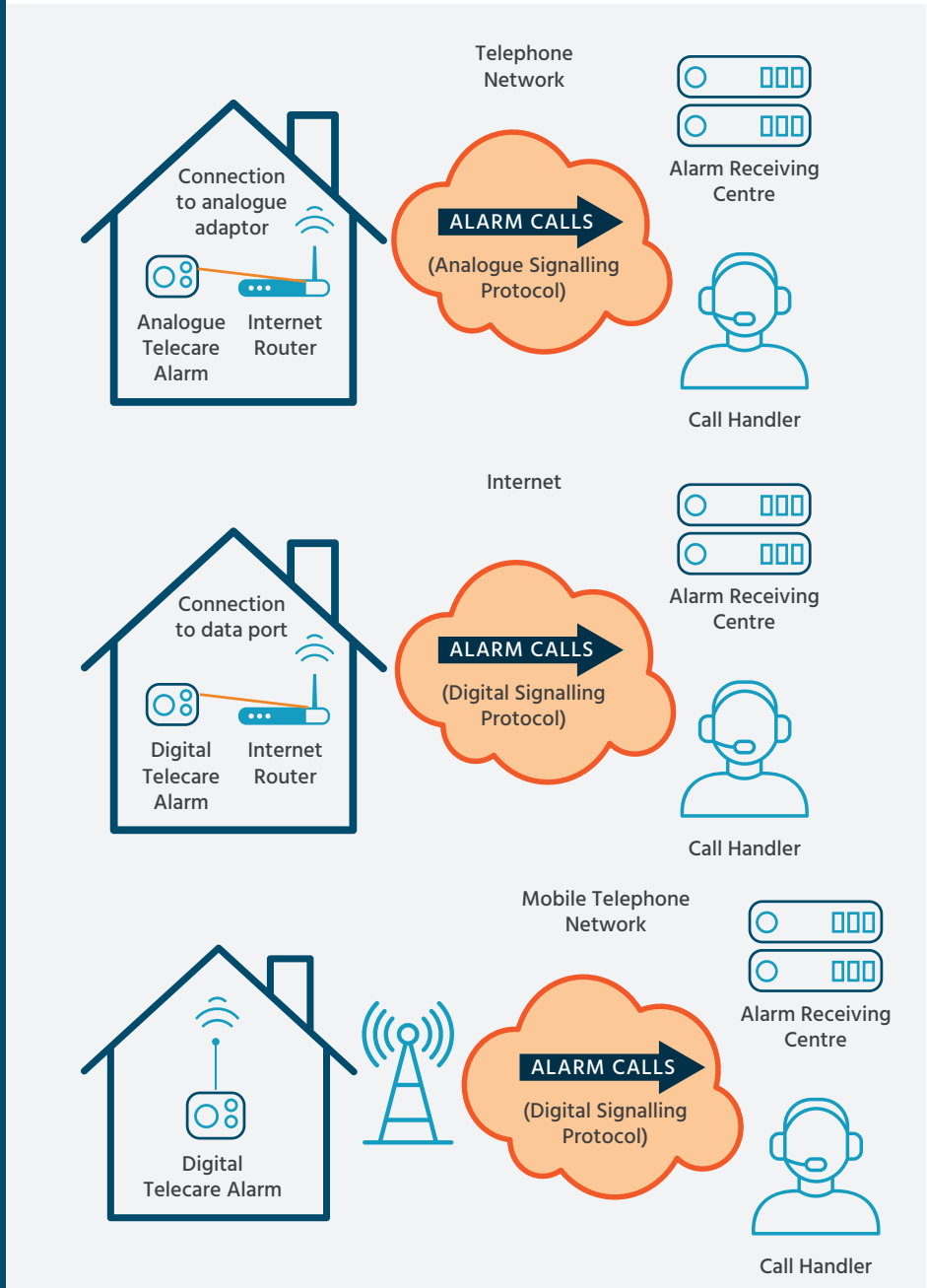


Figure 23: Overview of Analogue and Digital Alarm Device Installations. Top: Analogue Alarm and Digital Phone Line. Middle: Digital Alarm and Digital Network Connection. Bottom: Digital Alarm and Mobile Connection.

5.6.3 The first approach shown in the figure uses an analogue telecare alarm connected to a digital phone line using an analogue adaptor: typically this adaptor is provided in the Internet router but could also be a standalone device. Using this approach, analogue telecare signalling is carried as an IP dial up voice call over the telephone network to the ARC. The main benefit of this approach is that it allows existing analogue alarm devices and ARC solutions to be retained. The main drawbacks of this approach are the potential for reduced service reliability due to corruption of the analogue protocol signalling and the reliance on mains power or battery backup in the home to ensure the router remains operational (and that alarm calls are sent).

5.6.4 The second approach shows a digital telecare alarm using a data port on the router to connect over the Internet. This approach uses digital telecare signalling to connect to the ARC. The main benefit of this approach is that it does not use any analogue signalling or communications and so does not have the risk of reduced reliability due to signal corruption. The main drawback of this approach is that alarm devices and ARC solutions must be digital capable. The solution is also reliant on mains power or battery backup in the home to ensure the router remains operational.

5.6.5 The third approach also uses a digital telecare alarm, but this device uses the mobile phone network for connectivity. This approach uses digital telecare signalling to connect to the ARC; voice can either be carried as data (VoIP) or using a dial up phone call. The main benefits of this approach are that it does not use any analogue signalling, it is not reliant on a phone line or Internet connection being available in the home, and that it can continue to operate in the event of a mains power failure. The main drawbacks of this approach are the recurring cost associated with the mobile connectivity and the need for reliable mobile network coverage.

5.6.6 This study has found providers using all of these approaches. In some cases, providers have concluded that their existing analogue alarm equipment can operate reliably over a digital phone line and that they are therefore ready for the digital shift. Other organisations believe that the digital shift necessitates a digital upgrade to their alarm devices and ARC and are procuring and implementing these solutions.

5.6.7 Figure 24 and Figure 25 show providers' and suppliers' views on the use of analogue adaptors for connectivity. Most providers state that they will only use analogue adaptors as a short term solution (30%), or that they do not plan to use them at all (67%). No suppliers recommend analogue adaptors as a long term solution. 33% recommend it as a short term solution, with 25% recommending the approach is not used at all. A further 42% of suppliers stated that they do not provide customers with advice on this topic.

5.6.8 There is significant confusion amongst providers on the topic of analogue adaptors, with some providers not knowing what they are and whether they offer a reliable means of connection for telecare alarms. We believe that this confusion may mean that the provider results shown in Figure 24 are not a true representation of providers' plans. Interviews have been completed with some organisations that provided survey responses and examples have been found of digital shift planning that is entirely reliant on the use of analogue adaptors, but where the survey response has stated that they are not being used.

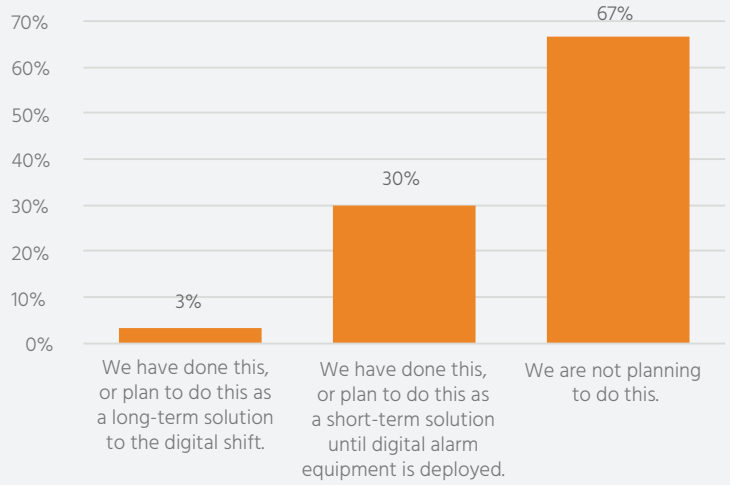


Figure 24: Do you plan to connect your analogue telecare alarms to digital telephone lines using an Analogue Terminal Adaptor (ATA)? - Responses from 31 Providers

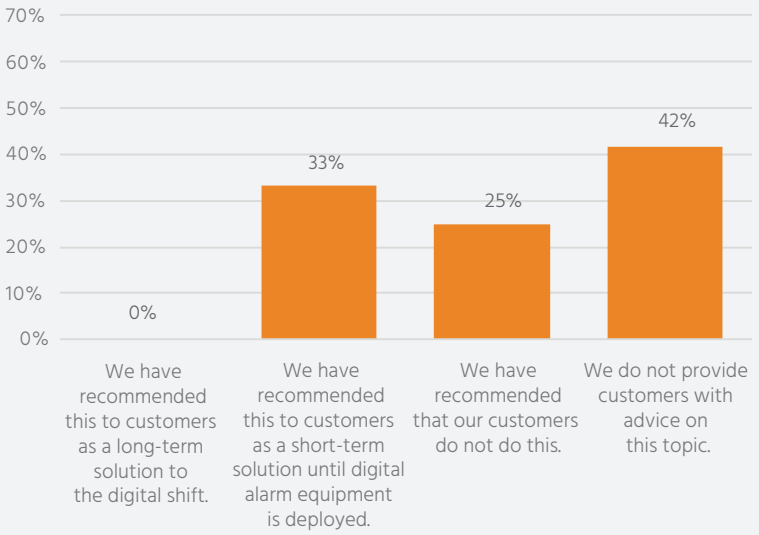


Figure 25: Do you provide advice to your customers on whether they should connect analogue telecare alarms to digital telephone lines using an Analogue Terminal Adaptor (ATA)? - Responses from 12 Suppliers

5.6.9 Figure 26 provides further views from providers on the reliability of existing analogue alarm equipment when connected to a digital phone line (via an analogue adaptor). As shown, most providers (58%) believe that some of their existing alarm equipment will operate reliably using this approach. 23% believe that none of their existing equipment is reliable while 16% do not know whether their equipment is reliable.

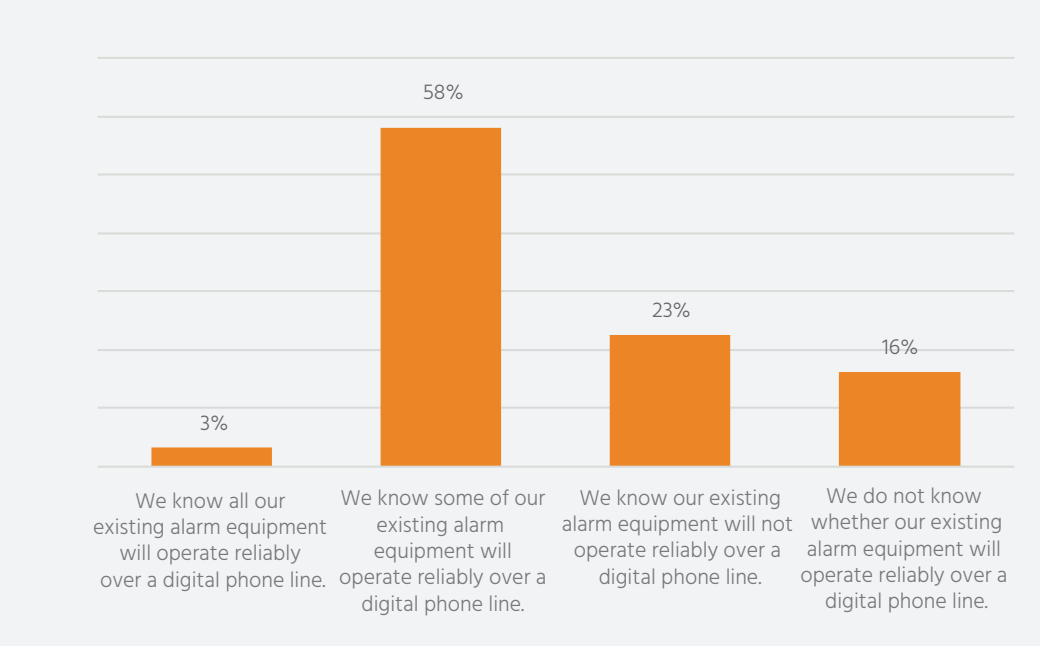


Figure 26: Do you know if your existing alarm equipment will operate reliably over a digital phone line? - Responses from 31 Providers

5.7 Digital Shift Progress & Plans – Suppliers' Perspective

5.7.1 Suppliers were asked to provide details of their own levels of readiness for the digital shift and their views on their customers' readiness.

In-Home Alarm Equipment

5.7.2 All alarm equipment suppliers (14 responses) stated that they have updated their products and services offering or introduced new equipment and services in response to the digital shift.

5.7.3 12 suppliers provided details of the proportion of the in-home alarm equipment they had sold over the last 12 months that were:

- **Analogue only:**
  - 7 suppliers had not sold any analogue only equipment;
  - 5 suppliers stated that a proportion of their equipment sold was analogue only. This proportion varied between 20% and 75%, with an average of 43%.
- **Digital ready** (able to operate in either an analogue or digital mode):
  - 5 suppliers had not sold any digital ready equipment;
  - 2 suppliers stated that all the equipment sold was digital ready;
  - 5 suppliers stated that a proportion of their sales were of digital ready equipment. This proportion varied between 10% and 80%, with an average of 44%..
- **Digital only**:
  - 6 suppliers had not sold any digital only equipment;
  - 5 suppliers stated that all the equipment sold was digital only;
  - The remaining supplier stated that 65% of its sales were digital only equipment.

5.7.4 Suppliers were asked how they expected these proportions to change over the next 12 months. All suppliers stated that they expected the proportion of digital equipment to rise but estimates of the extent of the increase varied, with proportions of between 50% and 90%

quoted. Suppliers highlighted the impact the global semiconductor shortage may have on their ability to meet demand for digital telecare equipment.

5.7.5 Suppliers were also asked whether they were seeing customers include digital requirements in technical specifications when procuring new equipment and services. As shown in Figure 27, digital requirements are being included by most or all customers in 58% of cases, and by some customers in 42% of cases. No suppliers said they were not receiving digital requirements.

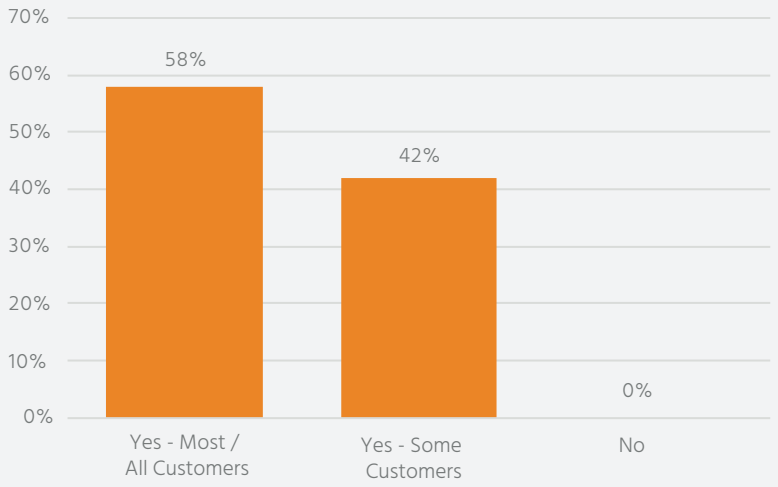


Figure 27: Are customers including digital requirements in their specification when procuring equipment/services – for example compatibility with digital phone lines and digital telecare protocols? - Responses from 12 Telecare Alarm Suppliers

Alarm Receiving Centres

5.7.6 All ARC suppliers (10 responses) stated that they have updated their products and services offering or introduced new equipment and services in response to the digital shift.

5.7.7 6 suppliers provided details of the proportion of the ARC solutions and services they had sold over the last 12 months that were:

- **Analogue only:**
  - 3 suppliers had not sold any analogue only solutions/services;
  - 3 suppliers stated that a proportion of the solutions/services sold were analogue only. This proportion varied between 5% and 20%, with an average of 10%.
- **Digital ready**
  - 2 suppliers had not sold any digital ready solutions/services;
  - 1 supplier stated that all the solutions/services sold were digital ready;
  - 3 suppliers stated that a proportion of the solutions/services sold were digital ready. This proportion varied between 5% and 90%, with an average of 59%.
- **Digital only:**
  - 2 suppliers had not sold any digital only solutions/services;
  - 1 supplier stated that all the solutions/services sold were digital only;
  - 3 suppliers stated that a proportion of the solutions/services sold were digital only. This proportion varied between 10% and 95%, with an average of 65%.

5.7.8 When asked how they expected these proportions to change over the next 12 months, the most common response was to highlight that demand for digital ARC solutions is dictated by customers' migrations plans for in-home alarm devices. 1 supplier stated that they expected to see 90% of ARC solutions sold to be digital.

5.7.9 ARC suppliers were also asked whether customers were including digital requirements in technical specifications for new equipment and services. As shown in Figure 28, digital is being included by most or all customers in 63% of cases, by some customers in 25% of cases, and is not being included in 13% of cases (though note given the sample size, this represents a single supplier).

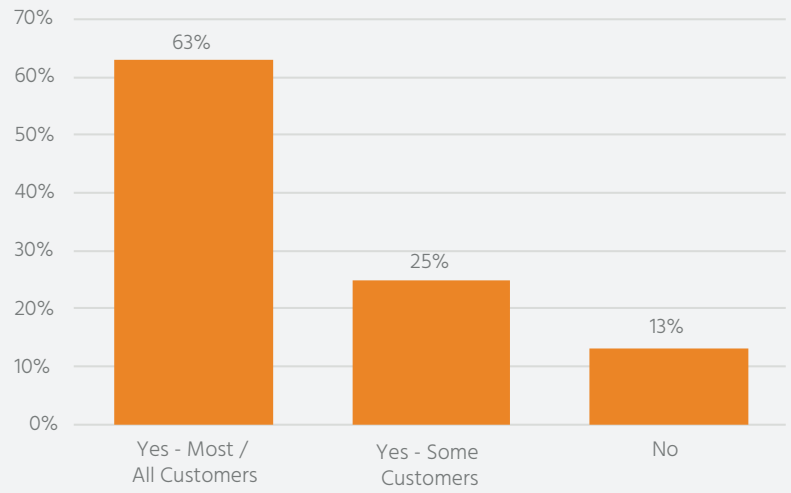


Figure 28: Are customers including digital requirements in their specification when procuring equipment/services – for example compatibility with digital phone lines and digital telecare protocols? - Responses from 8 ARC Suppliers

5.7.10 Of the 7 suppliers that offer call handling services on behalf of customers, all of them said that they had the capability to receive digital telecare calls. 4 suppliers provided details of the proportion of calls they are currently received digitally, responses varied from 10% to 100%, with an average of 37%.

6. Digital Shift: Opportunities & Challenges

6. Digital Shift: Opportunities & Challenges

6.1 Opportunities

6.1.1 The digital shift is being completed as a like-for-like transition of services by some providers while others see it as an opportunity to review and update their telecare service offering. Both approaches offer potential benefits, and this is an area that was examined by the study. This section summarises themes in the views collected from providers and suppliers.

6.1.2 Figure 29 and Figure 30 provide a summary of the proportion of providers that are seeking to use the digital shift as an opportunity to make wider changes to their telecare offering. The question was asked separately for the alarm device and ARC elements of the telecare service. As shown, 59% of providers offering alarm devices, and 55% of those offering ARC services are using the digital shift as an opportunity to make wider changes to their telecare service offering.

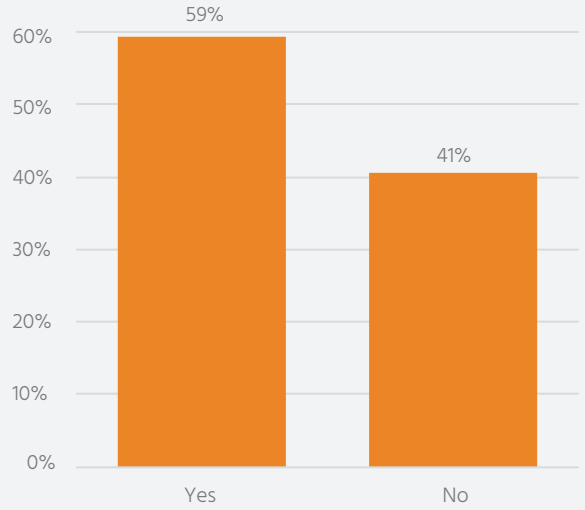


Figure 29: Are you planning to make any other changes to your telecare service offering or method of delivering services as part of the move to digital telecare? - Responses from 32 Providers

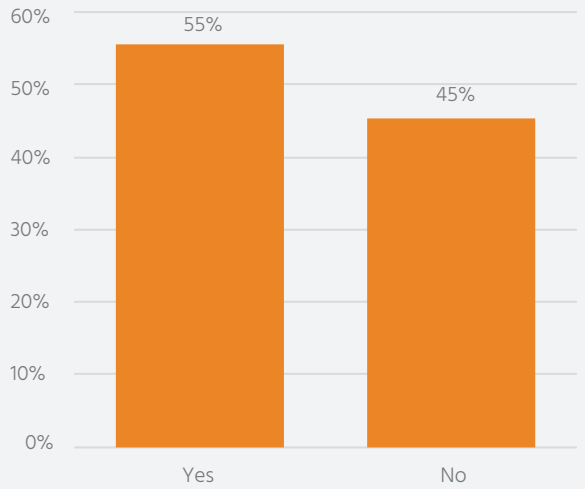


Figure 30: Are you planning to make any other changes to your Alarm Receiving Centre as part of the move to digital telecare? - Responses from 11 Providers

6.1.3 As detailed in the previous section, all suppliers providing a response indicated that they had updated their service offering, or added new services, in response to the digital shift.

6.1.4 When asked to detail the opportunities associated with the digital shift there was a high degree of overlap between the views of providers and suppliers. The table below details the themes highlighted, including whether these were cited by providers or suppliers.

Opportunity	Providers	Suppliers
Reliability:		
Ensuring telecare remain reliable following the digital shift	✓	✓
Better visibility of system health, helping to identify issues faster	✓	✓
Reduced connection time of alarm calls to the ARC	✓	✓
Service Transformation and Better use of Data:		
Opportunity to move from reactive to preventative services	✓	✓
Opportunity to offer proactive / reassurance calling	✓	✓
Opportunity to provide personalised care	✓	✓
Opportunity to provide telehealth services and support health condition management	✓	✓
Use of IoT, activities of daily living and telehealth to provide a richer view of service user health and wellbeing	✓	✓
Better access to data allowing integration, analysis and analytics to deliver integrated, personalised and preventative care	✓	✓
Use digital telecare equipment and/or associated connectivity to help tackle digital exclusion, social isolation and loneliness.	✓	
Opportunity for family members to have visibility of a service user's wellbeing and be more involved in the delivery of care		✓
Operational Improvements:		
Ability to programme alarm devices and peripherals remotely	✓	✓
Solutions and services are more scalable		✓
Ability to lower costs by increasing flexible working		✓
Introduce agile and remote working for ARC staff	✓	✓
Closer integration with other health and care services	✓	✓
Provides an opportunity to audit and cleanse client records	✓	
Potential to reduce / eliminate call charges	✓	
Lower costs		✓
Technology:		
Integration with IoT, smart devices, and wearables	✓	✓

Opportunity	Providers	Suppliers
Wider range of alarm devices and monitors supported	✓	✓
Ability to use bandwidth of digital connectivity to provide wider range of services and richer view of service users' wellbeing	✓	
Greater interoperability between systems and devices	✓	✓
Opportunity to use 5G to widen the range of services offered.	✓	✓

Figure 31: Summary of the Opportunities Associated with Digital Shift Seen by Providers and Suppliers

6.2 Challenges

6.2.1 Suppliers and providers were asked about challenges associated with the digital shift, including:

- Challenges already being experienced with current services due to the migration of service users' phone lines to digital;
- The challenges foreseen or already experienced associated with the upgrade of telecare services in response to the digital shift.

6.2.2 Both these areas are examined below.

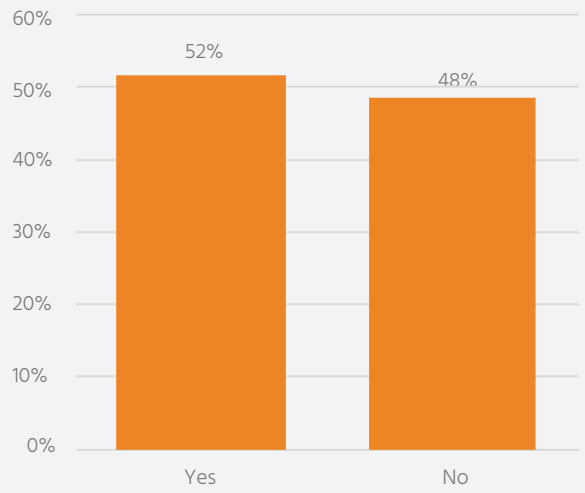
Challenges with Current Telecare Services Due to the Digital Shift

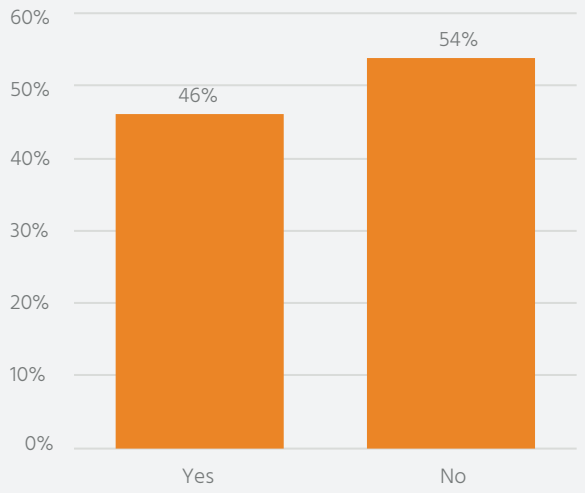
6.2.3 As Figure 32 and Figure 33 show, in questionnaire responses around half of providers and suppliers stated that they have already experienced issues with their existing telecare service because of the rollout of digital telephone lines. These issues include:

- Analogue telecare alarm devices not operating, or unreliable, when connected to a digital phone line;
- Service users being moved to digital phone lines without them being identified as a telecare user;
- Telecare equipment being left unconnected following a digital line upgrade;
- Service users not understanding or being told about the potential impact of the move to a digital phone line on their telecare service.

6.2.4 Approaches taken to address these issues include:

- Visiting a user's home to move the connection of the alarm to the broadband router's phone socket;
- Installing an analogue GSM alarm device to remove reliance on the user's phone line, though mobile coverage has been found to be an issue in some cases;
- Replacing older analogue alarm devices with a newer analogue device that offers better reliability over a digital phone line;
- Installation of a digital alarm device (where this is available as an option).





Have you experienced any issues with the performance or reliability of your existing telecare service as a result of the initial part of the rollout of digital telephony?

Figure 32: Responses from 33 Providers

Figure 33: Responses from 13 Suppliers

6.2.5 Call failure rates from analogue equipment were discussed further during stakeholder interviews. Not all stakeholders collect this information, but where they do, quoted failure rates across all service users were typically around 5%. However, the failure rate reported varied significantly; the lowest figure was 2.3% and one supplier reported seeing a failure rate of 30% for connections from older grouped scheme telecare equipment. For comparison, recent TSA Commissioner Guidance quotes a failure rate of 2.3% to 3.6% for alarm devices using analogue technology.

Challenges Planning and Completing Service Changes to Address the Digital Shift

6.2.6 Providers and suppliers highlighted several challenges they face when planning and completing changes to their telecare services for the digital shift.

Providers:

6.2.7 There were several strong recurring themes in the challenges quoted by providers. These were:

- **Where and when service users will have their phone lines migrated to digital.** Providers largely understand the upgrade process being used by the telecom providers, particularly Openreach, but they have limited information on when their service users will be migrated. This can lead to providers having to offer quick reaction solutions when a service user loses their telecare service because of an unexpected phone line migration. It also makes it difficult for providers to plan the rollout of digital telecare between now and the end of 2025.
- **Conflicting or unsubstantiated information on the reliability of existing analogue telecare equipment.** Providers have reported that they receive mixed messaging regarding the

reliability that can be expected when existing analogue alarm equipment is connected to a digital phone line. Different suppliers and other sources can offer conflicting opinions on the same devices and limited, if any, evidence is provided to support the statements regarding reliability. There is also a view that the messaging offered could be influenced by suppliers' commercial considerations with providers highlighting a need for a definitive and unbiased source of information. During interviews stakeholders stated that this challenge is compounded by the fact that there is no agreed definition of what 'reliable' means for a telecare connection, or how it should be tested or evidenced. Limited information is available on the historical reliability of analogue telecare (operating over analogue phone lines) that can be used as a baseline.

- **Cost of digital telecare equipment.** Providers highlighted that digital telecare equipment is more expensive than analogue equivalents. This is a particular concern for telecare alarm devices given the number installed and the potential for recurring charges associated with the SIM card where mobile connected devices are used. Difficulty obtaining complete costs for system upgrades is also an issue. In many cases providers stated that they had still to determine how the upgrade of their service will be funded, with increases in charges being one option considered. Some providers are looking at a wider transformation of their telecare service highlighting that the business case for investing in digital solutions can be strengthened when the potential impact on the wider health and care system is considered.
- **Communication with service users.** As detailed earlier in this report, providers are currently offering limited communication to service users on the digital shift and its impact on telecare services. Providers highlighted that they are currently unclear what to tell service users and how best to communicate any messaging.
- **Telecare Market Digital Maturity.** Providers cited several issues relating to the lack of digital maturity in the telecare marketplace. These included issues with telecare equipment/services not operating correctly or offering the functionality advertised, interoperability between telecare equipment, cyber security, and mixed and confused messaging to customers.

6.2.8 Other challenges cited (less frequently) by providers included:

- Lack of case studies and best practice from organisations that have already moved their telecare service to digital, especially at-scale deployments of digital telecare technology;
- Lack of understanding of digital technology making it difficult to evaluate suppliers' offerings and determine the optimum solution. This includes challenges obtaining sufficient support from in-house IT teams (where available);
- Lack of time to complete the upgrade of telecare systems and service users before 2025;
- Lack of awareness amongst senior management about the digital shift and its impact on telecare services;
- 1 year funding cycles can be an issue given the multi-year timescales and investment required to complete a roll-out of digital telecare equipment;
- Difficulties obtaining the required level of support and advice from telecare suppliers;
- Difficulty obtaining digital telecare equipment, particularly alarm devices, from suppliers and long lead times to obtain equipment;
- Lack of compatibility between manufacturers' telecare alarms, peripherals, and ARC solutions limiting the choice of digital solution that can be deployed;

- Running a digital telecare service can require providers to operate more like an IT department. This has an impact on operational procedures, for example adding complexity to fault finding and resolution procedures, and also on resourcing, with the need to put in place appropriate IT staff training, retention, and remuneration arrangements;
- Lack of resource to plan and complete the upgrade. Particularly the resource required to install new telecare alarm devices. Some providers highlighted that digital alarms can take longer to install than analogue equivalents given their more complex configuration and (for GSM alarms) the need to ensure appropriate mobile signal coverage;
- Poor mobile network coverage making GSM alarms unviable or unreliable.

6.2.9 Housing providers were seen as facing particular challenges in making the shift to digital given the large number of these organisations, and the fact that many of them are relatively small. Private housing providers are seen as being better able to make the shift than public / 3rd sector providers. Housing providers were also seen as having greater technology and funding challenges, as:

- Grouped scheme telecare solutions have a longer life than dispersed alarms and so tend to be older (up to 20 years) and less reliable when connected to a digital telephone line;
- The age of telecare equipment can also mean that there is a lack of experience within housing providers of specifying and procuring replacement solutions;
- Upgrades can require cabling to be replaced, which is expensive, time consuming and disruptive;
- Telecare systems often also support other building systems, such as fire panels, door access, lift alarms, etc which can complicate upgrade options;
- The one-off costs of upgrades can be more problematic to fund than recurring costs (the opposite situation to many councils) given that recurring costs can often be recovered from rent or benefits payments.

Suppliers:

6.2.10 Challenges quoted by providers, both in terms of completing their own service migration, and that they see their customers facing, included:

- Some customers lack the funding required to upgrade to digital telecare equipment. The recurring costs associated with SIM cards were highlighted as a particular issue;
- Some customers do not yet have firm plans for upgrading their solutions to digital. Suppliers also stated that several providers were trialling digital technology, but do not yet have plans and resource to scale and rollout digital telecare to their service users;
- Some customers' slow pace of change. Risk that telecare services will not have completed the necessary upgrades to address the digital shift by the end of 2025. Related to this, suppliers highlighted that some of their customers are upgrading telecare alarms to digital using their business-as-usual equipment refresh cycle – which can mean that upgrades extend past 2025;
- The slow pace of change to digital means that telecare solutions must continue to support legacy analogue protocols;
- Some customers failing to consider the wider impact of digital telecare solutions on their organisation, for example, skills and training, operational processes, service management;
- Some customers lack understanding of the digital shift and the impact on telecare;
- Some customers have not yet understood how digital technology and data can transform and improve telecare services;

- Cynicism about the digital shift from some customers given similar messaging previously issued by the telecare industry about BT's 21CN programme[17];
- Lack of compatibility between telecare equipment and supplier 'lock in', particularly relating to peripheral devices, constraining providers' choice when planning their digital upgrade;
- Security considerations when using digital connectivity, potentially including the Internet;
- Some suppliers lacking the readiness and capability to deliver digital solutions as promised;
- Customers being provided with different messages about service design, reliability and compatibility. Advice about the use of analogue adaptors was highlighted in particular;
- Lack of information and guidance provided by Government;
- Difficulties with supply chains and ability to meet customer demand, partly due to COVID19 and Brexit. Several suppliers stated that they expected the equipment supply issues to continue until at least the end of 2022;
- Poor mobile network coverage, particularly in-building coverage, making GSM alarms unviable or unreliable.

6.3 Service Users' Perspective

6.3.1 Views on the digital shift from a service user's perspective were collected during stakeholder interviews. As detailed earlier in this report, levels of awareness about the digital shift among service users and their families is generally very low. There has been limited media coverage on the shift and this has tended to focus on its potential negative impact on vulnerable telephone customers. Some telecare providers have sent information on the shift to their service users and telecom companies and charities are also providing information.

6.3.2 Concerns about the digital shift from a telecare service user perspective highlighted during interviews include:

- Reliability of the telephone service and/or the telecare service following the shift to digital, including the ability to use the services in the event of a power cut;
- The assumption that a mobile phone can be used as a backup to the telephone service to ensure emergency calls can be made. This included not having access to or being able to afford mobile phones and coverage concerns;
- Potential for costs to increase as a result of the shift, including unnecessary upselling by the telephone companies, for example, bundling unnecessary or over specified services as part of a package with telephony;
- The potential for scams and mis-selling;
- Security concerns around home visits including identification of engineers and scheduling to allow a friend or family member to be present;
- Not having an engineering visit to the home – with the telecom company instead relying on the customer self-installing the router, which they may not feel able/confident to do;
- Any change can cause confusion and concern for some telecare service users, especially those with dementia;
- Privacy concerns associated with the introduction of additional monitoring equipment in the home, for example, monitoring activities of daily living, tracking devices, etc.

17 https://www.ft.com/content/f22449ea-dcde-11d9-b590-00000e2511c8

6.3.3 The digital shift was also seen as offering opportunities and benefits from a service user perspective (in addition to those detailed in previous sections), including:

- Digital telephone lines offering greater ability to identify and block scam / automated calls;
- Potentially increasing the number of telecare service users with Internet connections and the potential for these to help tackle social isolation, loneliness and digital exclusion;
- The opportunity to use digital technology to extend the coverage of telecare services outside the home;
- Digital telecare equipment being more aesthetically pleasing than analogue devices, helping to reduce the stigma that can be associated with telecare, especially amongst younger service users.

6.4 Digital Shift: Impact on Telecare Services and Delivery Arrangements

6.4.1 During stakeholder interviews it was highlighted that the opportunities and challenges detailed above were having an impact on telecare services and the arrangements used to deliver them.

6.4.2 As detailed in Section 4 of this report, there are currently a wide range of telecare service offers and delivery arrangements in use. Stakeholders highlighted that, in general, larger providers were better placed to adapt their services to digital given they have greater access to resources, including dedicated IT and project management staff, installation resource, etc.

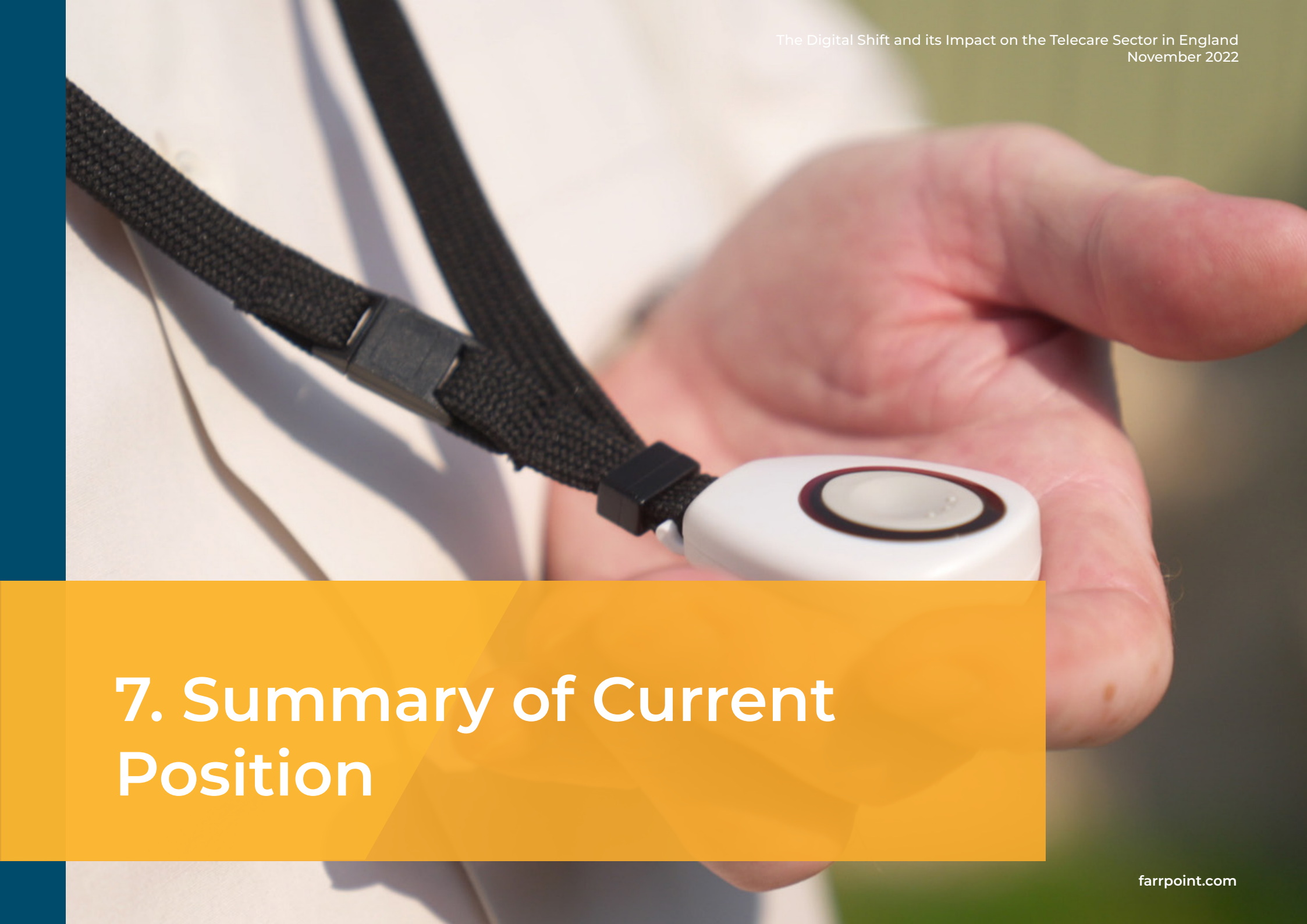
6.4.3 Examples were given of smaller providers that were struggling to resource the move to digital and instances of smaller providers ceasing to offer telecare, including:

- District councils closing their telecare service and transferring service users to the county council;
- Housing providers deciding it is not possible to upgrade their grouped telecare solution and telling residents to approach the council to obtain a dispersed alarm service.

6.4.4 Several stakeholders stated that they expected the digital shift to result in consolidation of telecare providers especially within localities that currently have multiple providers offering overlapping services.

6.4.5 Stakeholders also stated that the digital shift could see telecare services becoming more closely aligned with other health and care services and housing colleagues:

- The business case for upgrading to digital telecare can be difficult to develop based on a like-for-like transfer of services given the additional costs of equipment and connectivity. The business case can be strengthened if an integrated care offering is considered, where telecare can be seen as a relatively cost effective form of care delivery. Similarly, if the impact telecare can have on health services is included, for example, supporting prevention and early discharge, the business case is further strengthened;
- The scope of many telecare service offerings is becoming increasingly broad, with providers planning or already delivering preventative and proactive services, monitoring activities of daily living, and telehealth applications. The line between telecare and other health and care offerings is becoming increasingly blurred, driving the need for closer working and data sharing between the organisations delivering these services.



7. Summary of Current Position

7. Summary of Current Position

7.1.1 The previous sections have presented a wide range of information on current telecare services and the extent of providers' and suppliers' planning and readiness to adapt their services to respond to the digital shift. This section summarises some of the key findings, prior to presenting potential additional support that could be offered in the following section.

Service Providers and Service Delivery Arrangements

7.1.2 The study has found that telecare services are predominantly offered by local authorities (at all levels), housing providers, and commercial providers.

7.1.3 For non-commercial providers: Almost all providers have responsibility for sourcing and installing their own alarm devices. Call handling arrangements are more varied, with a split between providers that receive and handle their own calls, and those that contract / commission another organisation to do it on their behalf. Where another organisation is used, this is most commonly a commercial provider, although there are also sharing agreements in place with other local authorities and housing providers.

7.1.4 All providers currently use alarm devices and ARC solutions from a relatively small range of suppliers, with Tunstall having the largest market share.

Digital Shift Awareness

7.1.5 The study found consistently high levels of awareness of the digital shift and its impact on telecare amongst both providers and suppliers. However, we highlight that this result could be partly due to survey respondents being skewed to those organisations that were already engaged with the digital shift. There is some evidence to support this view when suppliers are asked about the levels of awareness of their entire customer base, with results showing a greater proportion of providers that are less aware.

7.1.6 Providers and suppliers are obtaining their information on the digital shift and its impact on telecare from a range of sources, most commonly the TSA, UK telehealthcare, telecare suppliers, and telecom providers. There is currently limited information being offered by providers to telecare service users on the digital shift and its telecare impact. Media coverage of the digital shift to date has been limited and focussed on risks to vulnerable users.

7.1.7 When asked about their level of confidence in their ability to adapt their telecare offering to respond to the digital shift there is a marked difference between providers and suppliers. No providers described themselves as 'very confident' with a range of responses offered from 'confident' to 'very concerned'. In contrast to this, the overwhelming response from suppliers was that they were 'very confident' with only a very small number saying they were 'very concerned'.

7.1.8 Around half of providers and suppliers have already experienced issues with their existing telecare service because of the digital shift. The most common issues relate to service users being migrated unexpectedly, of telecare devices not being connected to the digital line following a migration, and of analogue telecare devices not

operating, or not being reliable, when connected to a digital phone line. Estimates of the level of failed calls seen as a result of these issues are typically around 5%, although figures can vary from 2.3% to 30%, with consensus that older telecare equipment, particularly in grouped schemes, has higher failure rates.

Digital Shift Plans and Progress

7.1.9 Providers' plans for adapting their services for the digital shift are largely at a relatively early stage, with many plans still being developed, or yet to move into their implementation phase.

7.1.10 Plans and progress for upgrading ARC solutions and services are slightly better developed than for alarm devices. This is potentially due to the very large number of installed alarm devices compared to ARC solutions and the greater involvement of commercial suppliers in delivering ARC services.

7.1.11 No survey respondents reported that they had completed the upgrade of their alarm devices. 23% reported that they are currently migrating service users' equipment.

7.1.12 29% of survey respondents reported that they had completed the upgrade of their ARC and now have a live digital capability. A further 7% have upgraded their ARC and are currently testing digital capability.

7.1.13 Interviews with providers has highlighted differing opinions about the definition of a digital telecare service. This is particularly focussed on views about the appropriateness of using analogue adaptors (ATAs) as a long-term solution. This difference in definition is likely to cause some skewing of the results presented in this report, particularly around the degree of readiness and planning for alarm devices.

7.1.14 The current early stage of their planning means that most providers are unable to offer indicative dates for completing their migration to digital. This means it is not possible to estimate the proportion of service users that will be migrated to a digital telecare service by the time the digital shift of telephone lines is completed at the end of 2025. However, the current early stage of planning, combined with compounding factors, such as current telecare equipment supply issues and resource limitations, suggest that there is likely to be a risk that a significant number of service users will not be migrated to a digital service by 2025. To support this view, some interviewees spoke about completing contingency planning to ensure their highest vulnerability service users were identified and prioritised in their migration plans in order that these users' telecare service remained operational and reliable after 2025.

Opportunities and Challenges

7.1.15 55% of providers offering alarm devices and 59% of providers offering ARC services see the shift to digital as an opportunity to change the nature of their telecare service and how it is delivered. Changes include improving the reliability of services, as well as introducing new services, such as predictive, proactive and personalised care, closer integration with health services, and greater use of technology such as smart devices and data analytics. The range of opportunities cited by suppliers were very similar to those highlighted by providers.

7.1.16 Recurring themes in the challenges faced by providers in planning and implementing the digital shift include:

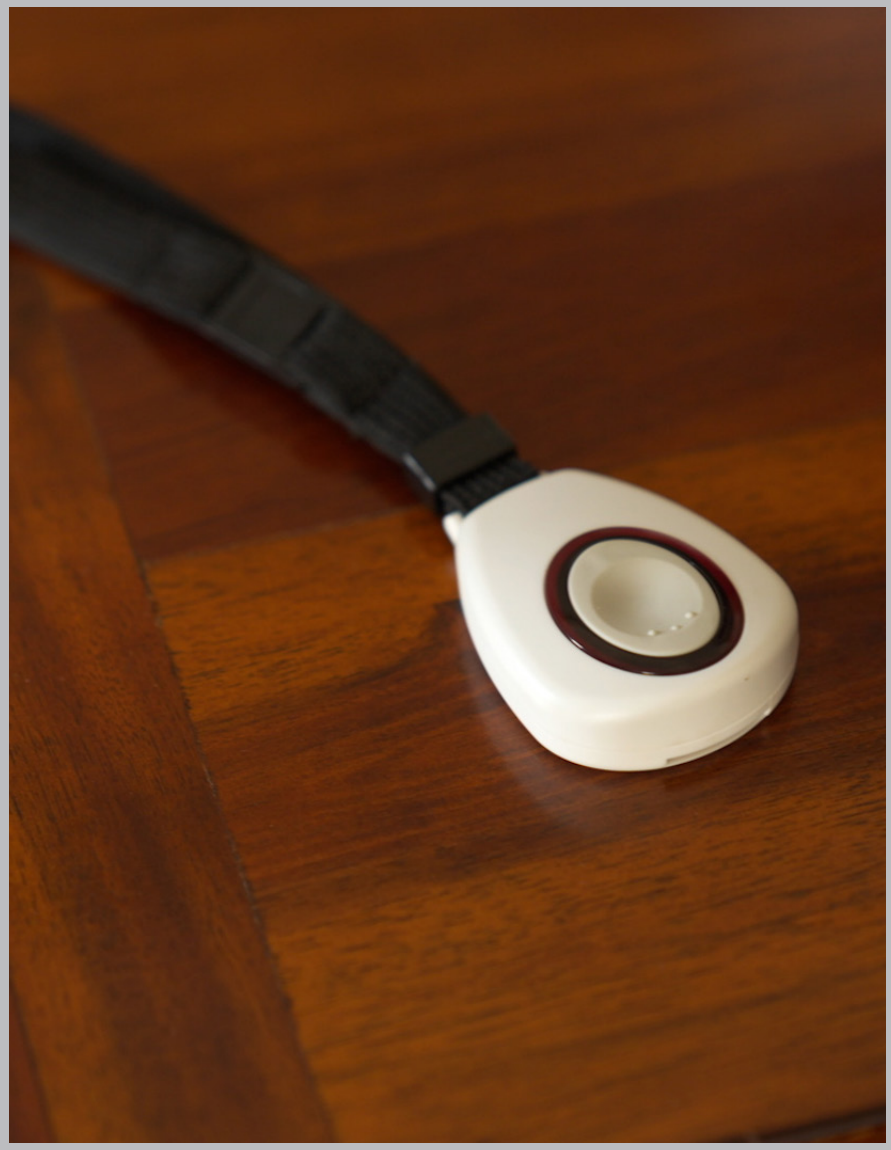
- Understanding where and when service users will be migrated to digital telephone lines;
- Conflicting messaging about the reliability and appropriateness of using analogue adaptors;
- The cost of digital telecare equipment, including recurring costs not currently incurred, and the difficultly developing business cases for investing in the service;
- Communication with service users, in terms of what to say and how best to communicate the message;

- Lack of digital maturity in the telecare marketplace leading to issues with solution performance, interoperability, and confused messaging.

7.1.17 In addition to these themes, other challenges highlighted included those relating to timescales, skills, resource, telecare technology, supplier capability, coordination, and communication.

7.1.18 These challenges could result in consolidation of telecare service providers, with examples quoted in particular of smaller providers lacking the resources to complete the shift and ceasing to offer a telecare service.

7.1.19 Although awareness of the digital shift amongst service users is currently low, some opportunities and challenges have been identified. Opportunities are similar to those quoted by providers and suppliers and relate to the potential to use technology and data to widen and improve the telecare service offering. Concerns relate to the reliability of telephony and telecare following the shift, and the potential for scams and unnecessary upselling.



8. Potential Digital Shift Support

8. Potential Digital Shift Support

8.1 Overview of Support Requirements

8.1.1 The questionnaires and stakeholder interviews conducted during this study highlighted several areas where additional support could:

- Help the social care sector take action to prepare for the digital shift and mitigate associated risks;
- Use technology to improve the range and efficiency of telecare services.

8.1.2 The support identified has been grouped into four workstreams as summarised in Figure 34. Each workstream is described in more detail in the remainder of this section. Although the workstreams are described separately, they are closely connected and must be delivered as a coordinated package of support.

8.1.3 Annex B contains a summary of the support products identified and suggested groups that could be involved in developing them.

Coordination

- Represent telecare in England
- Connect and coordinate telecare stakeholders associated with the digital shift
- Link to other programmes responding to the digital shift

Communication

- Ensure consistent terminology and messaging
- Raise awareness of the shift
- Identify telecare providers and contacts

Best Practice & Guidance

- Present authoritative and unbiased guidance to help providers make the shift to digital through technology and operational advice
- Promote the development of definitions and standards
- Identify and share best practice

Business Case & Strategy

- Ensure consistent terminology and messaging - like-for-like and service transformation
- Promote service transformation
- Develop / support telecare / TEC strategy

Figure 34: Overview of Support Workstreams

8.1.4 The support described will be delivered by several groups and organisations, including the telecare and telecom industry, providers, government, and other stakeholders. The description of the support currently assumes that NHS Transformation Directorate will coordinate and monitor the support provided, although another organisation could complete this role, if required. This coordination role will include identifying the group(s) with responsibility for producing each of the support products.

8.1.5 The description of each workstream contains examples of the support that could be delivered. These examples are not intended to be an exhaustive list of the support required. As described in this report, the process of adapting telecare services for the digital shift is still in its relatively early stages. It is very likely that further support requirements will emerge as the process progresses.

8.1.6 Some of the support requirements listed were a strong theme that were repeatedly cited in questionnaire responses and interviews, these are highlighted in the following sections.

8.1.7 In some cases, the support described is already being delivered, potentially to a partial extent or to a subset of stakeholders, these support requirements are included for completeness and to highlight the need to expand their scope or audience.

8.2 Coordination

8.2.1 As detailed in this report, the telecare landscape comprises a complex mix of providers, suppliers, technologies, service scopes and delivery models. Similarly, the digital shift of telephone lines involves a wide range of suppliers, infrastructure providers, technologies, commercial drivers, and contract arrangements. This workstream provides a coordinating role, acting as a single point of focus for telecare services to connect all parties involved in the digital shift of telecare services.

8.2.2 Examples of support highlighted during the study that could be delivered by this workstream include:

- Providing a single point of contact that represents telecare services in England. Stakeholders would highlight requirements for support or assistance to this point of contact, allowing common issues, support requirements, best practice, etc, to be identified and resolved / shared, as appropriate.
- Providing a link between telecare and telecom providers to:
  - Ensure common issues relating to the telecare services because of the digital shift are identified, highlighted, and resolved.
  - Improve and monitor telecom providers' processes for identifying and upgrading telecare users' telephone lines, particularly related to reconnecting telecare alarms post upgrade. Process improvements should include arrangements for telecare providers to be able to report and resolve post-upgrade issues.
  - **(Strong theme identified by the study)** Ensure that the process for flagging telecare users as vulnerable customers is understood and is implemented. This includes understanding whether a customer will be offered an in-person install, arrangements to ensure family are present, and providing battery backup.
  - **(Strong theme identified by the study)** Allow plans for the migration of service users to be communicated. A particular request was for any "where and when" information that can be provided.
- Facilitating a multi-agency approach and collaboration with other areas of Government and other public bodies. For example, health and care integration, or potentially linking with fire services to identify vulnerable people, and to install smoke detectors.
- Link to the other programmes of work that are also addressing the digital shift. This will ensure that lessons are learned from other related work, and that opportunities for linking the programmes are identified. Several stakeholders interviewed during the study,

particularly housing providers, highlighted that their telecare upgrade work was linked to a wider digital shift programme, such as also upgrading fire panels and lift alarms at the same time.

- Liaising with providers to understand progress and plans for the digital shift and to use this to provide an updated national picture.
- Highlighting funding opportunities available to providers, and potentially suppliers, such as the Unified Tech Fund[18].

8.3 Communication

8.3.1 There is currently a range of information offered on the digital shift from a range of sources. As detailed in this report, awareness of the digital shift amongst the stakeholders that engaged with this study is high, however, it has been highlighted that awareness amongst service users is generally low and there is currently limited communication being offered to service users by telecare providers to address this.

8.3.2 In addition, telecare services are offered by a large range of organisations in England, but there is no definitive list of providers and the total number of telecare service users can only be estimated. This means that a complete picture of the digital readiness of telecare services cannot be obtained, and there is currently no obvious route to offer digital shift best practice and guidance to all telecare providers.

8.3.3 The communication workstream would be responsible for helping improve awareness of the digital shift, predominantly amongst telecare service users and the public, and for ensuring telecare stakeholders are identified and made aware of the digital shift and support available to them.

8.3.4 Examples of support that could be delivered by this workstream include:

- **(Strong theme identified by the study)** Agree consistent terminology for telecare and the digital shift which is then used by all stakeholders. Currently a range of terms are used to describe telecare service and the digital shift meaning it is difficult to provide consistent advice and messaging. Examples include the different terms used for the digital shift by each of the telecom providers (digital phone lines, all IP, Internet calls, etc), complicating any messaging that is provided to telecare service users.
- **(Strong theme identified by the study)** Increase awareness of the digital shift among telecare service users and the public. Providers and suppliers highlighted that there is currently a low level of awareness amongst telecare service users and the public more generally about the digital shift. Increasing awareness of the shift, and its potential impact on telecare services, would assist providers when communicating telecare service plans to users and increase the likelihood of telecare providers being informed when a service user's line is being upgraded. However, providers and service user representatives also highlighted that there is a need to ensure that messaging does not create distress or concern among service users about the reliability of telephone and telecare services. The workstream could develop templates for providers to use when communicating with their service users about the digital shift.
- Identify telecare providers to produce a definitive list of organisations and contacts. Collating this list will allow a more complete picture of readiness to be obtained and facilitate a route to provide support. In addition, it would also increase the ability of telecom providers to identify telecare service users (given a more complete list of ARC telephone numbers) and to offer providers information on planned phone line migration activity.

18 https://www.nhsx.nhs.uk/digitise-connect-transform/unified-tech-fund/

- Provide a glossary of terms. Linked to the above comments about terminology, it was highlighted that the range of technical terms and acronyms associated with the digital shift was difficult for providers to understand. Offering a glossary of terms and providing a definition and explanation of some of the most used terms will assist providers in understanding the documentation and advice they are offered.

8.4 Best Practice & Guidance

8.4.1 Providers highlighted a range of challenges they face when planning and implementing the move to digital. Many of these challenges relate to the technical detail and operational impact of digital telecare services.

8.4.2 The best practice and guidance workstream would offer a range of practical advice and support to providers, aiming to help them make the move to digital and to embed digital in their service offering and operational processes.

8.4.3 Examples of support that could be delivered by this workstream include:

- **(Strong theme identified by the study)** Provide authoritative and unbiased technical and operational guidance. Providers highlighted a need for guidance from a trusted source to address areas where guidance is currently lacking, and where they receive mixed messages from different sources. Examples of the advice and guidance highlighted as being required included:
  - Whether use of analogue adaptors is an appropriate long-term solution for telecare services. This was a theme frequently heard during this study. Providers and suppliers highlighted that there is currently mixed messaging and limited evidence being offered on this topic which is causing confusion and potentially false complacency about readiness;
  - Whether it is appropriate to continue purchasing and installing analogue alarm devices;
  - Describing the risks associated with not adapting telecare services to the digital shift, including guidance for senior management;
  - Providing risk assessment tools to allow providers to understand and quantify the risks associated with the options available;
  - Providing advice on contingency planning and risk mitigation for providers that are unable to complete the shift of their services prior to 2025. This is likely to include advice on identifying and prioritising high vulnerability service users and the communication and advice that should be provided to service users;
  - The operational impact of digital telecare services including the potential impact on call volumes and how providers should monitor and respond to the additional information on system health provided by digital solutions;
  - Details of common digital shift challenges and how to evaluate / address them;
  - Cyber security and data protection advice;
  - Procurement / commissioning advice and templates;
  - Digital telecare readiness assessment tools;
  - A 'fact checking' service, providing a means for providers to validate information provided to them;
  - Training materials for staff.
- Supporting the development of definitions and standards for telecare, examples included:

  - Definition of what constituted a "reliable" telecare connection, how this should be tested and the evidence that should be provided to customers;
  - Standards to improve interoperability between telecare devices and systems including peripherals and device management platforms;
  - Data standards to improve system interoperability, including with other health and social care systems, and to promote better use of telecare data.
- Using a collective voice to influence telecare suppliers to resolve current issues providers are experiencing, including:
  - Maturity of the market and digital processes;
  - Solutions and equipment not operating as advertised/promised;
  - Interoperability issues;
  - Supplier lock-in;
  - Cost;
  - Equipment availability and lead times.
- **(Strong theme identified by the study)** Identify and share best practice. Providers are keen to learn lessons from others that have completed the move to digital telecare. Currently examples of digital telecare being deployed at scale are limited, however, they will become available as providers' projects progress, and should be shared when possible.

8.5 Business Case & Strategy

8.5.1 As detailed earlier in this report, 59% of providers see the digital shift as an opportunity to review their telecare service and how it is delivered. The types of change highlighted included moves to more preventative and personalised services, use of a wider range of technology and data, and closer integration with other areas of health and care.

8.5.2 While the primary focus of the previous workstreams is on the immediate need to help ensure telecare services are upgraded to respond to the digital shift, this workstream has a longer-term strategic focus on the "where next?" question following completion of the digital shift.

8.5.3 Examples of support that could be delivered by this workstream include:

- Emphasising the opportunities associated with the digital shift. Providers and suppliers both highlighted that there can be a focus on the challenges and practicalities associated with the shift to digital, meaning that the opportunities and positives digital technology offers can be missed.
- **(Strong theme identified by the study)** Development of business case templates for the move to digital telecare. Providers highlighted that it can be difficult to justify the funding and resource required to complete the move to digital telecare. Development of business case templates would present the costs and benefits of the move, allowing providers to assess the viability and options available. Many providers stated that the business case for digital telecare is strengthened when viewed as part of the wider health and care system, and so templates are required for a like-for-like transition to digital and for a wider service transformation with both ensuring that the impact telecare has (or could have) on reducing pressure on other elements of health and care are considered and quantified.

- Promote service transformation and develop strategy. Most stakeholders consulted during this study could see the opportunities that a move to digital technology offered for transforming telecare services and how they were delivered. Stakeholders highlighted the need for a champion for this service transformation, promoting the benefits offered and leading the development of strategy to support its implementation. This role would include:
  - Demonstrating the benefits of transforming telecare services, potentially including a move to more proactive, preventative, and personalised care;
  - Demonstrating how wider use of technology, including consumer technology, can improve telecare services;
  - Demonstrating how better use of data can improve telecare services;
  - Promoting closer working between telecare and other areas of health and social care;
  - Collecting, collating, and quantifying the benefits service transformation offers to service users, service providers, the wider health and care system, and society.
- Providing cost models to support providers planning the move to digital. Providers highlighted that they can currently struggle to fully quantify the costs associated with the move to digital telecare, including wider service transformation where appropriate. Cost models could be developed that providers can use to assess the options available to them.
- Promoting telecare more broadly. Providers highlighted that the profile of telecare services can be relatively low, meaning that potential service users and other health and care professionals are not aware of the benefits the service can offer. Promoting telecare services, emphasising their benefits, and trying to remove some of the stigma that can be associated with them would help drive service uptake and awareness.

9. Summary & Next Steps

9. Summary & Next Steps

9.1.1 The findings of this study provide an insight into the telecare services currently being offered in England and the complex mix of providers, suppliers, technology and contract/commissioning arrangements involved in delivering them.

9.1.2 The digital shift is driving fundamental change in every element of telecare service delivery, including:

- **Technology:** Nearly all existing technology needs to be upgraded or replaced. Telecare is becoming more like an IT service, impacting the processes and skills needed to manage it;
- **Operations:** Digital telecare provides more information on service user and system health. Operational processes are required to monitor and respond to this information;
- **Funding:** Digital telecare solutions are more expensive and likely to use a revenue based charging model, impacting providers' funding and charging arrangements;
- **Strategy:** Digital telecare offers greater opportunity to use technology and data to offer better and more efficient services. With this comes a requirement for telecare services to work closely with other health and care providers.

9.1.3 Introducing fundamental change into the complex telecare landscape is a significant undertaking. This study has found that telecare providers and suppliers have a high level of awareness of the digital shift, but the level of planning and readiness to address the shift is largely still at an early stage.

9.1.4 With such a mix of telecare delivery arrangements, it is perhaps inevitable that there is also a mix of approaches being taken to address the digital shift. Some providers are seeking to complete a like-for-like shift of their existing service to digital, while others see it as a catalyst to transform their service offering, taking full advantage of the opportunities offered by digital technology, data, and integration.

9.1.5 Regardless of the approach being taken by providers to address the digital shift there is agreement about the challenges they face and the support that could assist their planning and implementation work. This support includes:

- **Co-ordination:** Providing a point of focus for the wide range of organisations involved in telecare service delivery and the digital shift, including those not currently engaged via existing membership and interest groups;
- **Communication:** With a particular emphasis on increasing awareness amongst telecare service users and the public. Identifying telecare service providers and vulnerable users is also an important element of this support;
- **Best Practice and Guidance:** Providing trusted technical and operational guidance and best practice on planning, implementing and operating digital telecare;
- **Business Case and Strategy:** Demonstrating and quantifying the value telecare services currently deliver, and the opportunities offered by service transformation.

9.1.6 To implement the support identified, we recommend that NHS Transformation Directorate:

- **Recognises the Time Critical Nature of the Digital Shift:** The arrangements put in place to develop and deliver the support detailed in this report must recognise its time critical nature. The shift of telephone lines to digital is underway and is already resulting in disruption to telecare services. Availability of resource, equipment, and funding are all likely to restrict the rate at which service users' telecare services can be migrated to digital technology, meaning implementation activity must start as soon as possible to minimise the number of service users left at risk from a potentially unreliable service.
- **Identify 'Quick Wins':** Related to the above, the support requirements should be reviewed with stakeholders to identify 'quick wins' where existing guidance exists that can be reused or shared more widely. An example of this is the recent commissioner / buyer guidance[19] from TSA advising telecare providers to stop buying analogue only alarm devices.
- **Prioritise the Support:** The support requirements should also be reviewed with stakeholders to prioritise those that are most widely requested or provide the greatest support in the short term. A suggested list from the stakeholder engagement completed by this study is:
  - Robust processes between telecare and telecom providers for identifying vulnerable users;
  - Providing greater clarity on where and when service users' telephone lines will be upgraded;
  - Increasing awareness of the digital shift amongst telecare service users and the public;
  - Provide definitive guidance on the use of analogue alarm equipment and analogue adaptors;
  - Assistance with development of business cases to justify investment in digital telecare.
- **Implement Processes to Monitor Progress:** The process of adapting telecare services for the digital shift is still in its relatively early stages. This means that further support requirements will emerge, and best practice will be developed as the process progresses. Regular reviews of the shift should be completed to monitor progress and ensure support requirements and best practice are identified, addressed and shared, as appropriate.
- **Recognise the Long-Term Change to Telecare:** The digital shift is the first step of a process of change for telecare services. The shift will put in place digital technology which provides a platform on which a range of new and innovative health and care services can be built. Some telecare providers already see these opportunities and are implementing them as part of their digital shift, others may implement this change at a later date. This study has highlighted a need for long-term support to ensure that the benefits digital technology, data and integration can offer to telecare are fully exploited.

19 https://www.tsa-voice.org.uk/campaigns/digital-shift/social-alarms-systems-from-analogue-to-digital/

Annex A - Glossary

Annex A - Glossary

21CN	An upgrade programme announced by BT in 2004 aiming to move the telephone network to IP technology.
Activities of Daily Living	Activities of daily living refers to the day-to-day tasks a person completes that are fundamental to them caring for themselves and maintaining independence. They include washing, toileting, eating, moving around the home, etc. Some telecare providers use technology to monitor a person's activities of daily living to help identify if they need additional care or assistance to maintain their independence
ARC **Alarm Receiving Centre**	Also referred to as a monitoring centre. In the event of a telecare alarm device detecting an event an alert is sent to an alarm receiving centre. Staff at the centre will receive the alerts and can speak to the service users and arrange an appropriate response, as required.
ATA **Analogue Terminal Adaptor**	ATA - Analogue Terminal Adaptor. A device for connecting traditional analogue devices to a digital telephone system or a voice over IP telephony network. ATAs can be integrated into Internet routers, allowing analogue devices to be plugged into the router, or provided as a standalone device.
Call Failures	See Failed Calls
DCMS	Department for Digital, Culture, Media and Sport.
DHSC	Department of Health and Social Care.
Digital Shift	The move of telephone lines from analogue to digital (Internet Protocol, IP) technology. Other terms used can include: • Digital switchover; • All IP; • IP Voice; • Voice over IP (VoIP); • Public Switched Telephone Network, PSTN, switch off; • Analogue telephony switch off.
Dispersed Alarm Unit	A telecare alarm installed in someone's home and typically providing support to a single service user or, in some cases, a couple. See 'grouped scheme' for comparison
ERG	Expert Reference Group. The ERG was formed by NHS Transformation Directorate to assist with the planning and completion of this study. The ERG has membership designed to represent all stakeholders with an interest in telecare / TEC. This includes representatives from adult social care providers, central and local government, health, housing, and the third sector. Telecare industry bodies and telecom providers are also included to represent the views of suppliers.
Failed Calls	Call failures are where a call from a telecare alarm fails to connect correctly at the ARC. The failure can manifest in several ways, including it not being answered, the ARC being unable to identify the caller, or no voice, or one-way voice being experienced.
GPS	Global Positioning System.

Grouped Scheme	A telecare alarm installed in a shared housing facility, such as a sheltered housing or assisted living complex. A grouped scheme alarm will provide telecare services to all users in the facility, as opposed to a dispersed alarm, which provides services only to a single home / person.
GSM	Global System for Mobile Communications. A standard used to describe the protocols used by cellular mobile devices and networks.
Home	Home is used to describe both service users' own homes and a home-like setting, for example, residential or sheltered accommodation.
In-Home Alarm	A telecare alarm installed in a service users' own home or in a home-like setting, for example residential or sheltered accommodation.
IoT	Internet of Things. Devices, such as sensors and smart devices, that connect to the Internet to exchange data.
IP	Internet Protocol. The protocol used to send digital data over a computer network. Digital telecare devices use Internet Protocol to communicate between alarm devices and the ARC. Note that despite its name, Internet Protocol is used to send data over **any** computer network, not just the Internet (i.e. also including the private networks used by some organisations).
IT	Information Technology.
LGA	Local Government Association.
NHS	National Health Service.
NHSX	A joint unit that brings together teams from across the Department of Health and Social Care, NHS England and NHS Improvement to lead digital transformation across the NHS and social care. The work of NHSX now sits with the NHS Transformation Directorate.

NUTS	Nomenclature of Territorial Units for Statistics. Major socio-economic regions of the United Kingdom classified for statistical purposes. https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat
Ofcom	The UK's communications regulator. http://ofcom.org.uk/
OTA	Office of the Telecommunications Adjudicator. http://www.offta.org.uk/
Peripheral	In telecare the term peripheral is used to refer to monitors or sensors that connect to a telecare alarm device. These telecare peripherals can include smoke detectors, fall detectors, bed occupancy sensors, epilepsy sensors, door monitors and medication dispensers, amongst others.
Proprietary Protocol	A proprietary protocol is one that is developed, owned and used by a specific manufacturer. This limits other manufacturers" ability to use this protocol, or to interconnect with equipment using the protocol. For comparison, open protocols are not specific to or owned by a particular manufacturer and are available for anyone to use.
Provider	Umbrella term used in the report to describe a local authority, housing provider, or other organisation that offers telecare services or contracts/commissions another organisation to provide them on their behalf.
PSTN	Public Switched Telephone Network. The 'traditional' telephone network that is now being replaced with IP telephony.
RAG	Red, Amber, Green. Rating system used to summarise progress or risk.
SaaS	Software-as-a-Service, also often called a Cloud service. A method of software delivery and licensing in which software is accessed online via a subscription, rather than bought and installed on individual computers. Some telecare suppliers are now offering their Alarm Receiving Centre solutions as a SaaS solution, often based on a per service user and/or per call handler monthly fee basis.

Service User	Also referred to as customer, client, citizen, and person. The term service user is used in this report to describe the person whose wellbeing and health is being monitored using the telecare / TEC service.
SIM	Subscriber Identity Module. A SIM card identifies the user of a device connected to the mobile telephone network. GSM telecare alarm devices contain a SIM card to allow them to connect to a mobile network. These SIM cards are often 'roaming' meaning that they can connect to any available mobile phone network.
Supplier	Umbrella term used in this report for organisations selling the equipment and services used to deliver telecare.
TEC	Technology Enabled Care. TEC services are often seen as having a wider scope and use of technology than telecare. NHS England defines TEC as: **Technology enabled care services refers to the use of telehealth, telecare, telemedicine, telecoaching and self-care in providing care for patients with long term conditions that is convenient, accessible and cost-effective.**
Telecare	Telecare is used in the report as shorthand for the range of telecare and TEC services, this includes services provided in housing schemes, such as warden call systems. Telecare can also be referred to as community alarms, social alarms, or warden call systems. Telecare systems use a variety of equipment installed in a person's home or home-like setting to remotely monitor their wellbeing and help them live independently. A range of sensors can be used to detect events such as a fall, fire, flood, or unusual activity. If an event is detected, the equipment sends an alert to an ARC where staff can arrange an appropriate response.
Telehealth	A term used to describe remote health monitoring, and more specifically the technology that enables this monitoring.
TSA	Technology enabled care Services Association. The industry body for technology enabled care services. https://www.tsa-voice.org.uk/
VoIP	Voice over Internet Protocol. Technical protocols used to send voice traffic as data over a network connection such as the Internet (or any other data network). Some digital telecare solutions can send voice calls between the alarm device and ARC using VoIP.

Annex B - Summary of Support Identified

Annex B – Summary of Support Identified

Figure 35 summarises the group(s) identified as potentially contributing to the development of the support products identified in this report.

Figure 36 provides a summary of the support products presented in Section 8 and an initial suggestion of the group(s) that could be involved in developing them.

The figures currently assume NHS Transformation Directorate is responsible for coordinating and monitoring the support. The involvement and roles/ responsibilities of all groups listed are subject to discussion and agreement

Group	Potential Role
ADASS	ADASS is likely to provide a route to engage with, and feedback the views of, senior social care management in Local Authorities.
DCMS	DCMS is the leading the Government's work to monitor and prepare for the digital shift. They are likely to provide a link to the wider government digital shift work and sharing of best practice.
Housing Provider Representatives	Housing Provider Representatives could include existing membership organisations from the sector. They are likely to provide: • Assistance in identifying and engaging with housing providers that deliver telecare services; • Ensuring the needs of the housing sector are reflected in the support provided
LGA	The LGA is likely to: • Contribute existing best practice and guidance from its existing work with Rethink Partners; • Use its established engagement with stakeholders to provide a route to engage with, and feedback from, councils; • Link to and share best practice from the wider work in councils to address the digital shift.
NHS Transformation Directorate	It is currently assumed that NHS Transformation Directorate is responsible for coordinating and monitoring the delivery of the support products detailed in this document. This will include: • Identifying the groups responsible for producing / delivering the support; • Coordinating links between telecare providers, industry, health, other government departments and other stakeholders; • Identifying emerging support requirements and best practice as the digital shift progresses.
Ofcom & the OTA	Ofcom and the OTA are included to ensure that any potential impact of the support products on telecommunications regulation are identified and addressed

Group	Potential Role
Other Government Departments	Other Government departments could provide support by ensuring the opportunities and benefits associated with a multi-agency delivery approach for telecare are identified, included, and quantified (where required).
Service User Representatives	Service User Representatives could include charities that engage with telecare service users. Their role is likely to ensure that the views of service users, particularly the more vulnerable, are represented and addressed.
TechUK & Telecom Providers	TechUK and telecom providers are likely to provide: • A means to engage with and obtain feedback from communications providers that are completing the digital shift; • Details of the processes and arrangements for identifying and migrating vulnerable customers; • Details of developments in plans for completing the digital shift
Telecare Industry Bodies	Telecare industry bodies could include membership organisations and telecare equipment/solution/service suppliers. They are likely to provide: • Information on existing support and guidance that can be reused; • Support to the development of new technology and operational guidance; • Information on telecare solution/equipment development roadmaps.

Figure 35: Summary of Roles of the Groups Identified as Potentially Being Involved in the Development of Support Products

Reference	Support Requirement	Group(s) Potentially Responsible for Producing
Coordination:		
SR001	Provide a single point of contact that represents telecare services in England. This could be a new approach, or one that builds on existing arrangements.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
SR002	Provide a link between telecare and telecom providers to: • Highlight and resolve common issues relating to the telecare services because of the digital shift. • Improve and monitor telecom providers' processes for identifying and upgrading telecare users' telephone lines. • **(Strong theme identified by the study)** Ensure that the process for flagging telecare users as vulnerable customers is understood and is implemented. • **(Strong theme identified by the study)** Allow plans for the migration of service users to be communicated.	• NHS Transformation Directorate • Telecare industry bodies • TechUK & telecoms providers • Ofcom & OTA • Service user representatives
SR003	Facilitate a multi-agency approach and collaboration with other areas of Government and other public bodies. The task would require existing and potential new collaboration best practice to be identified, developed and shared with telecare stakeholders. For example, health and care integration, or potentially linking with fire services to identify vulnerable people, and to install smoke detectors.	• NHS Transformation Directorate • LGA • Other Government Depts.
SR004	Link to the other programmes of work that are looking to address the digital shift more widely. Examples include the existing DCMS and LGA digital shift programmes and the work completed by many housing providers to identify systems (other than telecare) that are impacted by the digital shift.	• NHS Transformation Directorate • LGA • DCMS • Housing provider representatives
SR005	Liaise with providers to understand progress and plans for the digital shift and to use this to provide an updated national picture. The update frequency for the national picture will be determined by the pace of the response to the digital shift, however, we anticipate that given the 2025 deadline as the minimum an annual update is required.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives

Reference	Support Requirement	Group(s) Potentially Responsible for Producing
SR006	Highlight funding opportunities available to providers, and potentially suppliers.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
Communication:		
SR007	**(Strong theme identified by the study)** Agree consistent terminology for telecare and the digital shift which is then used by all stakeholders.	• NHS Transformation Directorate • Telecare industry bodies • Housing provider representatives • TechUK & telecoms providers • DCMS • Ofcom & OTA • Service user representatives
SR008	**(Strong theme identified by the study)** Increase awareness of the digital shift amongst telecare service users and the public.	• NHS Transformation Directorate • Telecare industry bodies • Housing provider representatives • TechUK & telecoms providers • Ofcom & OTA • ADASS & LGA • Service user representatives
SR009	Identify telecare providers and contacts. This will provide a more complete list of telecare providers in England allowing a more comprehensive baseline of readiness for the digital shift to be produced and to provide a route for providing advice and support to all telecare providers	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives

Reference	Support Requirement	Group(s) Potentially Responsible for Producing
SR010	Provide a glossary of digital telecare terms.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
Best Practice & Guidance:		
SR011	**(Strong theme identified by the study)** Provide authoritative and unbiased technical and operational guidance. Examples of the guidance highlighted as being required includes: • Whether analogue adaptors are an appropriate long-term solution for telecare services; • Whether it is appropriate to continue purchasing / installing analogue alarm devices; • Describing the risks associated with not adapting telecare services to the digital shift, including guidance for senior management; • Providing risk assessment tools to allow providers to understand and quantify the risks associated with the options available;	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives • TechUK & telecoms providers
	• Providing advice on contingency planning and risk mitigation for providers that are unable to complete the shift of their services prior to 2025; • The operational impact of digital telecare services including the potential impact on call volumes and how providers should monitor and respond to the additional information on system health provided by digital solutions; • Details of the common challenges faced during the shift to digital and how to evaluate and address them; • Cyber security and data protection advice; • Procurement / commissioning advice / templates; • Digital telecare readiness assessment tools; • A 'fact checking' service, providing a means for providers to validate information provided to them; • Training materials for staff.	

Reference	Support Requirement	Group(s) Potentially Responsible for Producing
SR012	Support development of definitions and standards for telecare, examples included: • Definition of a "reliable" telecare connection, how this should be tested, and the evidence that should be provided to customers; • Standards to improve Interoperability between telecare devices/systems – including peripherals and device management platforms; • Data standards to improve system interoperability, including with other health and social care systems, and to promote better use of telecare data.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives • TechUK & telecoms providers
SR013	Use a collective voice to influence telecare suppliers to resolve issues providers are experiencing, including: • Maturity of the market and digital processes; • Solutions/equipment not operating as advertised/promised; • Interoperability issues; • Supplier lock-in; • Cost; • Equipment availability / lead times.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
SR014	**(Strong theme identified by the study)** Identify and share best practice. Stakeholder interviews completed for this study have highlighted some initial best practice that can be used to support this activity.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
Business Case & Strategy:		
SR015	Emphasise the opportunities associated with the digital shift.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives

Reference	Support Requirement	Group(s) Potentially Responsible for Producing
SR016	**(Strong theme identified by the study)** Develop business case templates for the move to digital telecare. Templates are required for a like-for-like transition to digital and for a wider service transformation with both ensuring that the impact telecare has (or could have) on reducing pressure on other elements of health and care are considered and quantified. These business cases will assist telecare providers in securing funding internally, or potentially from integration partners.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
SR017	Promote service transformation and develop strategy. Stakeholders highlighted the need for a champion for service transformation to: • Demonstrate the benefits of transforming telecare services, including a move to proactive, preventative, and personalised care; • Demonstrate how wider use of technology, including consumer technology, can improve telecare services; • Demonstrate how better use of data can improve telecare services; • Promote closer working between telecare and other areas of health and social care; • Collect, collate, and quantify the benefits service transformation offers to service users, service providers, the wider health and care system, and society.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
SR018	Provide cost models to support providers planning the move to digital, including wider service transformation. Separate cost models are likely to be required for local authority and housing providers.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives
SR019	Promote telecare more broadly. Providers highlighted that the profile of telecare services can be relatively low, meaning that potential service users and other health and care professionals are not aware of the benefits the service can offer.	• NHS Transformation Directorate • Telecare industry bodies • ADASS & LGA • Housing provider representatives

Figure 36: Summary of Support Products Identified by the Study and the Group(s) Potentially Responsible for Producing Them

Annex C - Survey Questions

Annex C – Survey Questions

Provider Questionnaire

1. Contact Details and Use of Data

1. Organisation
2. Name
3. Position
4. Email
5. Telephone number
6. I understand that my participation in this survey is voluntary and I consent to taking part.

   I understand and accept that any data provided in response to this questionnaire will be shared by FarrPoint with NHSX, the Local Government Association and their Care & Health Improvement Programme (CHIP) digital support partner, Rethink Partners Limited. In addition, anonymised and summary-level versions of the data collected will be included in a study report which will be published by NHSX.

   - Yes / No
7. I am willing to be contacted by FarrPoint to clarify the questionnaire responses provided or to seek further information relating to this study, if required

   - Yes / No

2. Digital Shift Awareness

8. Is your organisation aware of the move of telephone services to digital technology by 2025?

   - Yes – Fully aware
   - Yes – Some awareness
   - Yes – Heard about it, but don't know the detail
   - No – Not aware of this
9. Is your organisation aware that the move of telephone services to digital technology has already started and that stop sell dates are being set by OpenReach after which no new analogue telephone services can be provided?

   - Yes – Fully aware
   - Yes – Some awareness
   - Yes – Heard about it, but don't know the detail
   - No – Not aware of this
10. Is your organisation aware of the impact on telecare services from the move to digital telephone services?

    - Yes – Fully aware
    - Yes – Some awareness
    - Yes – Heard about it, but don't know the detail
    - No – Not aware of this

11. How do you feel about the digital shift and how it may impact your telecare service and service users?
    - Very confident
    - Confident
    - Neither confident or concerned
    - Concerned
    - Very concerned
12. Please provide brief detail explaining how you feel about the impact of the digital shift on your telecare service and users.
13. Where are you obtaining information from about the shift of telephone service to digital?
14. Where are you obtaining information from about the impact of the digital telephone service on telecare?
15. What information on the digital shift are you providing to your telecare service users?

3. In Home Alarm Equipment

3.1 Current Telecare Service Arrangements

16. Is your organisation responsible for providing and installing telecare alarms in service users' homes, or for commissioning/contracting another organisation to do this on your behalf?
    - Yes / No
17. If no, please provide details of the organisation responsible for providing and installing telecare alarms in service users' homes.

    Please list the organisation responsible only, do not provide any personal contact details
18. Have you experienced any issues with the performance or reliability of your existing telecare service as a result of the initial part of the rollout of digital telephony? For example, service users' telecare service stopping working, or being unreliable.
    - Yes / No
19. If yes, please provide details of the nature of these issues, the number of occurrences, how the issues were identified, and how these were resolved?
20. What is your organisation's response when a vulnerable service user tells you that their telephone service is being moved to a digital line?

3.2 Scope of Telecare Service

21. How many service users do you provide telecare to?
22. How many of these service users are self-funders?
23. What telecare alarm equipment do you currently use to provide services?

    Please provide details of manufacturers and models used.
24. Do you know if your existing alarm equipment will operate reliably over a digital phone line?
    - We know all our existing alarm equipment will operate reliably over a digital phone line.
    - We know some of our existing alarm equipment will operate reliably over a digital phone line.
    - We know our existing alarm equipment will not operate reliably over a digital phone line.
    - We do not know whether our existing equipment will operate reliably over a digital phone line.
25. Do you plan to connect your analogue telecare alarms to digital telephone lines using an Analogue Terminal Adaptor (ATA)?
    - We have done this, or plan to do this as a long-term solution to the digital shift.
    - We have done this, or plan to do this as a short-term solution until digital alarm equipment is deployed.
    - We are not planning to do this.

3.3. Digital Shift Planning and Readiness

Please note that these questions relate to the move of service users to digital telecare – a later section relates to digital planning and readiness of the alarm receiving centre.

The definition of 'digital telecare' in this section refers to telecare services delivered using equipment that communicates using digital telecare protocols. Analogue telecare equipment connected to a digital telephone line via an analogue to digital converter (ATA) should not be included in your response.

26. Please indicate which of these statements most closely represents your level of digital telecare readiness.
    - We currently only offer analogue telecare services and have no project or planning in place to move service users to digital telecare.
    - We currently only offer analogue telecare services. We are in the early stages of digital telecare planning – but currently have no firm plan or timescales for the move of service users to digital telecare.
    - We currently only offer analogue telecare services. We have an outline plan and timescales in place for the move of service users to digital telecare. We are currently putting the necessary approvals and resources in place to allow us to implement the plan.
    - We currently only offer analogue telecare services. We have a plan, timescales, and the required approvals and resources in place to move service users to digital telecare.
    - We currently offer both analogue and digital telecare services and have a plan, timescales and the required resources in place to move all service users to digital telecare.
    - We have completed the move of all service users to digital telecare.

27. Provide the date your plan (if applicable) indicates you will complete the rollout of digital telecare to service users. If unknown, please leave blank.
28. What are the main activities and milestones of your migration plan (if defined)?
29. What are the main issues you are facing when planning/completing the move of service users to digital telecare?
30. What do you see as the main opportunities offered to your service users and organisation as a result of the move to digital telecare?
31. Are you planning to make any other changes to your telecare service offering or method of delivering services as part of the move to digital telecare?

    For example, changing the scope of service offered, closer integration with health, changing operational or funding arrangements, introducing new technology.

    - Yes / No
32. If yes, please provide details.
33. Where are you getting information and best practice advice from to support the development of your digital telecare plans?
34. What additional information or tools could be provided to help you plan and implement the move to digital telecare?

4. Alarm Receiving Centres

4.1 Current Service Arrangements

35. Does your organisation receive telecare alarm calls from service users (i.e. operate an Alarm Receiving Centre)?

    - Yes / No
36. If no, please provide details of the organisation responsible for receiving telecare alarm calls from your telecare service users.

    Please list the organisation responsible only, do not provide any personal contact details.
37. Have you any plans to change your existing ARC arrangements?

    - Yes / No
38. If yes, please provide details.
39. What is your current ARC solution manufacturer and product/version number (e.g. Tunstall PNC v 8.2)?

4.2 Scope and Size of Alarm Receiving Centre

40. How many service users' alarm equipment are connected to your alarm receiving centre?
41. Do you answer telecare alarm calls on behalf of other organisations?

    - Yes / No
42. If yes, please provide details of the other organisations you answer calls for and the number of service users handled from each organisation.

4.3. ARC Digital Shift Planning and Readiness

43. Please indicate which of these statements most closely represents the level of digital telecare readiness of your ARC solution.

    - Our ARC solution can currently only support analogue alarms. We have no project or planning in place to digitally enable our ARC solution.
    - Our ARC solution can currently only support analogue alarms. We have a project and plan in place to digitally enable our ARC solution but have not yet started to implement digital.

- Our ARC solution has been upgraded to a digital capable solution – but we have yet to make changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls) to enable us to receive digital telecare connections.
- Our ARC solution has been upgraded to a digital capable solution and we have made the necessary changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls). We can receive digital telecare connections and are currently in testing prior to offering digital telecare to service users.
- Our ARC solution has been upgraded to a digital capable solution and we have made changes to the rest of our IT infrastructure (e.g. Internet connections and firewalls). We can receive digital telecare connections and are currently providing digital telecare to service users.

44. Where in the previous question you have indicated that you have firm plans and timescales in place to implement an operational digital ARC solution, what date will this solution be in place?
45. If your Alarm Receiving Centre is already capable of receiving digital telecare connections – how many active digital telecare alarms are already connected to the Alarm Receiving Centre?
46. What are the main issues you are facing when planning/completing the move of your Alarm Receiving Centre to digital telecare?
47. Are you planning to make any other changes to your Alarm Receiving Centre as part of the move to digital telecare? For example, changing the scope of service offered, closer integration with health, better use of data, changing operational or funding arrangements, introducing new technology.
    - Yes / No
48. If yes, please provide details.
49. Where are you getting information and best practice advice from to support the development of your Alarm Receiving Centre digital upgrade plans?
50. What additional support or information could be provided to help you plan and implement the move of your Alarm Receiving Centre to digital telecare?
51. This question can be answered if you wish to clarify or add extra information to any responses you have provided whilst completing the survey. Please ensure you state the question number any comments relate to.

Supplier Questionnaire

1. Contact Details and Use of Data

1. Organisation
2. Name
3. Position
4. Email
5. Telephone number
6. I understand that my participation in this survey is voluntary and I consent to taking part.

   I understand and accept that any data provided in response to this questionnaire will be shared by FarrPoint with NHSX, the Local Government Association and their Care & Health Improvement Programme (CHIP) digital support partner, Rethink Partners Limited. In addition, anonymised and summary-level versions of the data collected will be included in a study report which will be published by NHSX.
   - Yes / No

7. I am willing to be contacted by FarrPoint to clarify the questionnaire responses provided or to seek further information relating to this study, if required.
    - Yes / No

2. Digital Shift Awareness

8. Is your organisation aware of the move of telephone services to digital technology by 2025?
    - Yes – Fully aware
    - Yes – Some awareness
    - Yes – Heard about it, but don't know the detail
    - No – Not aware of this
9. Is your organisation aware that the move of telephone services to digital technology has already started and that stop sell dates are being set by OpenReach after which no new analogue telephone services can be provided?
    - Yes – Fully aware
    - Yes – Some awareness
    - Yes – Heard about it, but don't know the detail
    - No – Not aware of this
10. Is your organisation aware of the impact on telecare services from the move to digital telephone services?
    - Yes – Fully aware
    - Yes – Some awareness
    - Yes – Heard about it, but don't know the detail
    - No – Not aware of this
11. How do you feel about the digital shift and how it may impact your telecare service and service users?
    - Very confident
    - Confident
    - Neither confident or concerned
    - Concerned
    - Very concerned
12. Please provide brief detail explaining how you feel about the impact of the digital shift on your telecare service and users.
13. Where are you obtaining information from about the shift of telephone service to digital?
14. Where are you obtaining information from about the impact of the digital telephone service on telecare?

3. In Home Alarm Equipment

3.1 Current Telecare Equipment / Services

15. Does your organisation provide telecare alarms equipment for installation in service users' homes?
    - Yes / No
16. If yes, please provide a brief overview of the equipment/services offered.
17. Have you updated your equipment/service offering and/or introduced new equipment/services in response to the rollout of digital telephony?
    - Yes / No
18. Please provide further details on your previous response.

19. Have you experienced any issues with the performance or reliability of your existing telecare equipment/service as a result of the initial parts of the rollout of digital telephony? For example, service users' telecare service stopping working, or being unreliable.
    - Yes / No
20. If you have experienced issues with current telecare equipment/ services, please provide details of the nature of these issues, the number of occurrences, and how these were resolved?
21. What is your organisation's response when a vulnerable service user tells you that their telephone service is being moved to a digital line?
22. Do you provide advice to your customers on whether they should connect analogue telecare alarms to digital telephone lines using an Analogue Terminal Adaptor (ATA)?
    - We have recommended this to customers as a long-term solution to the digital shift.
    - We have recommended this to customers as a short-term solution until digital alarm equipment is deployed.
    - We recommend that our customers do not do this.
    - We do not provide customers with advice on this topic.

3.2 Customer Awareness & Demand

23. How aware are your customers of the digital shift and the impact on telecare services?
    - Fully aware
    - Some awareness
    - Heard about it, but don't know the detail
    - Not aware
24. "Customers" refers both to organisations and individuals buying telecare equipment.

    If there is a difference in the level of awareness between these groups, please provide details here.
25. What information on the digital shift is your organisation making available to customers?
26. Are customers including digital requirements in their specification when procuring equipment/services – for example compatibility with digital phone lines and digital telecare protocols?
    - Yes – Most / All Customers
    - Yes – Some Customers
    - No
27. Approximately what proportion (%) of equipment/services you sold over the last 12 months have been Analogue only - only able to support analogue phone lines and protocols.
28. Approximately what proportion (%) of equipment/services you sold over the last 12 months have been Digital ready – able to support both analogue and digital connectivity and protocols.
29. Approximately what proportion (%) of equipment/services you sold over the last 12 months have been - Digital only – only able to support digital connectivity and protocols.
30. How do you expect these proportions to change over the next 12 months?

3.3. Digital Shift Planning and Readiness

31. What are the main issues your organisation is facing when planning/ completing the move of your equipment/service offering to support digital telecare?

32. What are the main issues you believe your customers are facing when planning/completing the move to digital telecare?
33. What are the main opportunities your organisation sees in relation to the move to support digital telecare?

    For example, changing the scope of equipment/services offered, introducing new technology, better use of automation/data, etc.
34. What are the main opportunities your customers are offered in relation to digital telecare?

    For example, changing the scope of telecare services offered, closer integration with health, introducing new technology, better use of automation/data, etc.
35. Where are you getting information and best practice advice from to support the development of your digital telecare plans?
36. What additional information or tools could be provided to you or your customers to help plan and implement the move to digital telecare?

4. Alarm Receiving Centre Equipment and Services

4.1. Current Telecare Equipment/ Services

37. Does your organisation provide alarm receiving centre equipment and/ or services for telecare?
    - Yes / No
38. If yes, please provide a brief overview of the equipment/services offered.
39. Have you updated your equipment/ service offering and/or introduced new equipment/ services in response to the rollout of digital telephony?
    - Yes / No
40. Please provide further details on your previous response.

4.2 Scope and Size of Alarm Receiving Centre

This section should be completed if your organisation answers telecare alarm calls on behalf of customers.

If your organisation does not answer telecare alarm calls on behalf of customers, please move to Section 4.3.

41. How many service users' alarm equipment are connected to your alarm receiving centre?
42. How many direct to service user (consumer service) customers do you have?

    If N/A please state this.
43. How many commissioned/contracted service customers do you have? Please include:
    - Number of organisations calls are answered on behalf of.
    - Number of telecare service users' calls are handled for on behalf of these organisations.
    - If N/A please state this.
44. What is your current ARC solution manufacturer and product/version number?

    E.g. Tunstall PNC version 8.2

45. How many incoming telecare alarm calls do you receive in a typical 12-month period?

    I.e. excluding any changes to call volumes seen as a result of COVID.

46. What period do these figures relate to?

47. Is your service currently able to receive digital telecare calls? – i.e. using a digital connection and digital telecare protocol.

    - Yes / No

48. If no, do you have plans to introduce this capability? Please provide brief details and timescales.

49. If you can receive digital telecare calls:

    What proportion of the telecare connections into your service are already digital?

50. If you can receive digital telecare calls:

    What proportion of the calls you received in the last 12 months were received digitally?

4.3. Customer Awareness & Demand

51. How aware are your customers of the digital shift and the impact on telecare services?

    - Fully aware
    - Some awareness
    - Heard about it, but don't know the detail
    - Not aware

52. "Customers" refers both to organisations and individuals buying telecare equipment.

    If there is a difference in the level of awareness between these groups, please provide details.

53. Are customers including digital requirements in their specification when procuring equipment/services – for example compatibility with digital phone lines and digital telecare protocols?

    - Yes – Most / All Customers
    - Yes – Some Customers
    - No

54. Approximately what proportion of equipment/services you sold over the last 12 months have been Analogue only (%) - only able to support analogue phone lines and protocols.

55. Approximately what proportion of equipment/services you sold over the last 12 months have been Digital ready (%) – able to support both analogue and digital connectivity and protocols.

56. Approximately what proportion of equipment/services you sold over the last 12 months have been Digital only (%) – only able to support digital connectivity and protocols.

57. How do you expect these proportions to change over the next 12 months?

4.4. Digital Shift Planning and Readiness

58. What are the main issues your organisation is facing when planning/ completing the move of your equipment/service offering to support digital telecare?

59. What are the main issues you believe your customers are facing when planning/ completing the move of their service users to digital telecare?

60. What are the main opportunities your organisation sees in relation to the move to support digital telecare? For example, changing the scope of equipment/services offered, introducing new technology, better use of automation/data, etc.

61. What are the main opportunities your customers are offered in relation to digital telecare? For example, changing the scope of telecare services offered, closer integration with health, introducing new technology, better use of automation/data, etc.

62. Where are you getting information and best practice advice from to support the development of your digital telecare plans?

63. What additional information or tools could be provided to you or your customers to help plan and implement the move to digital telecare?

64. This question can be answered if you wish to clarify or add extra information to any responses you have provided whilst completing the survey. Please ensure you state the question number any comments relate to.

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