

Feasibility Study: Telecare in Scotland Analogue to Digital Transition

Product 2 and 3 Report (Executive Summary)

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NHS 24, Scottish Centre for Telehealth and Telecare



Scottish Centre for
Telehealth & Telecare



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1. Executive Summary

The Scottish Government, via The Scottish Centre for Telehealth and Telecare, has commissioned FarrPoint to undertake a feasibility study to investigate the transition of telecare within Scotland from analogue to digital technology.

In completing this feasibility study, a number of products were agreed as deliverables:

- Product 1 - Evidence Base and Profile;
- Product 2 - Implementation Guide;
- Product 3 - Pilot Site Design.

It was agreed that Products 2 and 3 should be combined. This report details the findings of the combined Products 2 and 3.

Digital Telecare Implementation

It is assumed that Digital Telecare will be deployed in Scotland, given the likely decommissioning of analogue telephony services at some point in the future, and because digital technology is required to support increased numbers of telecare users and evolution of the telecare service offering. These issues were examined in more detail in the Product 1 report.

It is recommended that the implementation of Digital Telecare is completed in two phases: a **Rollout Phase** and a **Consolidation Phase**.

Recognising that a shift to Digital Telecare is a significant undertaking in terms of cost, effort, and operational change, the scope of the initial **Rollout Phase** is limited to shifting existing analogue telecare services to a digital platform **on a like-for-like basis**. For planning purposes, it is assumed that **the Rollout Phase is likely to take around 5 years** to move all Telecare Alarm Receiving Centres (ARCs) and users to digital technology.

During the Rollout Phase, digital ARCs will be established and service users' equipment will be replaced by digital equivalents. Given the large amount of deployed equipment in users' homes the process of migrating this to digital is likely to take some time to complete meaning that **there will be a period of 'dual running' where ARCs have a mix of digital and analogue users**.

As the Rollout Phase is focussed on shifting existing telecare services to a digital platform on a like-for-like basis, **only a subset of the identified Digital Telecare benefits** (detailed in Appendix B) **will be delivered by this phase**. The phase should be viewed as **putting a scalable, flexible, digital platform in place that future proofs telecare services** and has the potential to deliver significant further benefits. These further benefits are obtained during the **Consolidation Phase**.

The **Consolidation Phase is where the full benefits of Digital Telecare are obtained**. The phase is, in reality, likely to take the form of **a continual incremental development process** where new Digital Telecare offerings are added over time to the scope of the services provided to users. Services will be added to the Digital Telecare offering once it is established that they offer a benefit to service users and/or service providers. The process of developing and evaluating potential new Digital Telecare services over time is likely to be completed through small scale pilot projects, similar to the approach being undertaken via a number of initiatives presently.

The transition of telecare to digital technology means that the current distinction between telecare, telehealth and other areas of Technology Enabled Care (TEC) will become increasingly artificial. In the longer term it is likely that the different areas of TEC will converge to a single digital platform in service users' homes. This platform will be used to deliver a wide range of health and care applications, of which telecare will be only one.

Digital Telecare Deployment Model

The implementation approach detailed above is independent of the model used to deploy Digital Telecare. Three deployment models are examined in this report:

- **No Migration to Digital:** The “do nothing” option where the existing analogue systems are retained. This approach is included as a benchmark against which other options can be compared.
- **Standalone Digital:** The existing number and location of ARCs is unchanged but each is individually migrated over time to a Digital Telecare solution.
- **Clustered Digital:** ARCs are ‘clustered’, offering services for a number of organisations. Each of the clustered ARCs is migrated to a Digital Telecare solution. There are a number of ways of clustering ARCs; the approach examined is the ‘Shared Agent’ approach where an existing ARC provides

alarm/call answering services on behalf of a number of others. Existing response service arrangements remain unchanged.

Both digital models put in place a scalable, flexible, platform that is able to scale to cope with increased user numbers and offer a range of new and innovative services.

Both digital models also have associated benefits and issues. The clustered option has lower costs, is more efficient and is better able to offer a full range of advanced and shared services. However, the standalone model involves the least operational change and may be more palatable at a local level.

The deployment of Digital Telecare can be used as an opportunity to standardise telecare technology, telecare services, and to ensure high quality service standards and robust reporting / management information arrangements.

Although this potentially delivers significant operational benefits, it is a change to the more localised arrangements currently in place and it will take political will, time and effort to develop these standards.

The estimated annual costs for each of the deployment approaches for all existing public sector ARCs in Scotland are as follows (cost models are at Appendix C):

- No Migration to Digital: £ 14,231,060
- Standalone Digital Deployment: £ 21,477,700
- Clustered Digital Deployment: £ 18,614,800

These costs are for the running costs of the ARC and all equipment, including equipment in user's homes. The costs exclude response services and any income to service providers through charges to service users.

Both digital deployment options have a higher estimated cost than that for delivering existing analogue services. This additional cost is almost wholly associated with providing digital connectivity to service users' homes. This connectivity is assumed to be delivered using mobile telephone networks during the Rollout Phase. The clustered digital deployment model has lower costs than the standalone model as a result of the efficiencies associated with the sharing of ARCs. The model assumes that three existing ARCs merge into a single clustered ARC.

The choice between the digital deployment models is not going to be made on a technology basis as technology is equally able to support either approach. Instead,

the decision will be based on a financial basis and the willingness and ability of existing telecare service providers to adopt a clustered approach. **For this reason, this report does not recommend which digital deployment approach is most suitable and instead provides supporting information to allow a decision on the most suitable approach to be made.**

Pilot Projects and Next Steps

This report contains a series of suggested next steps to progress the planning and implementation of Digital Telecare. These next steps include the establishment of a series of Pilot Projects.

Pilot projects are required to validate the benefits of Digital Telecare and the proposed implementation approach. Four objectives for the pilot projects are defined:

- Validate the benefits to service user and care provider from 'Standard' Digital Telecare Services;
- Demonstrate the potential benefits to service users and care providers from 'Advanced' Digital Telecare Services;
- Validate and inform guidelines on the Digital Telecare implementation approach;
- Demonstrate the viability and benefits associated with ARC clustering.

It is noted that it is unlikely that a single pilot will be able to test/prove all of these objectives and so multiple projects are likely to be required. It is also noted that a number of the pilot objectives may be met by projects being funded as part of the existing TEC programme.

Pilot projects should be completed over a period of at least six months and be regularly reviewed by the TEC team throughout their duration in order to gain early feedback and to provide the opportunity to adapt the projects as required.

In addition to the pilot projects, a number of key issues and questions have been identified that will influence the definition and implementation of Digital Telecare. Arrangements should be put in place to further understand and address / monitor these key issues/questions:

Clustering: The viability of the clustered ARC approach needs to be established as does the extent of clustering that is achievable and optimal.

Standardising Telecare Services and Service Levels: A decision is required on whether a more standardised approach is to be taken to the scope of telecare services and associated service levels and reporting.

International Standards: Scotland should become an active participant in the work currently commencing to develop European standards for Digital Telecare to ensure that they ultimately reflect the needs of Scotland.

Equipment Availability: Engagement with Digital Telecare equipment manufacturers and service providers is required to fully understand the equipment/services currently available and to demonstrate demand to stimulate the market to develop further.

Connectivity: Liaison with Scottish Government, Highlands and Islands Enterprise, Smart Cities and Community Broadband Scotland intervention projects should be maintained to ensure that developments in broadband coverage are monitored and that demand for services from Digital Telecare are factored into rollout plans.