DIGITAL TELECARE INSIGHT SERVICE

ANALOGUE TELECARE - CAN IT WORK RELIABLY IN A DIGITAL WORLD?

"OpenReach do not recommend the use of ATA ports for life-critical equipment as they cannot be 100% guaranteed."
- OpenReach

WHAT WE DON'T KNOW...

We don't yet have sufficient data to understand the level of failed calls that telecare service providers can expect to see. Therefore we don't know if some alarm devices, ARCs or telephone providers are more affected by this risk than others. Telephone companies have labs for telecare manufacturers to test the reliability of their devices, but there is very limited information being provided by manufacturers on the testing they have completed, and the results of this testing.

WHY IS RELIABILITY IMPORTANT?

One of the biggest risks associated with the UK's transition to digital telephony is that older analogue devices do not operate reliably over digital connections. For life-critical services, such as telecare, any disruption to services could have serious consequences. This reliability risk is one of the key drivers for the transition to digital telecare.

WHAT IS THE DIGITAL OFFICE DOING ABOUT THIS?

- We're working with TSPs to monitor call failure rates. This will provide an early indication of an increasing problem. Currently this data doesn't show failure rates that have increased over last 12 months.
- Working with UK Government, devolved governments and the telecare and telecoms industry to promote a standard approach to testing telecare device reliability and the sharing of results.
- Working with telecom and mobile SIM providers to understand network roll-out, upgrading plans and the impact this will have on analogue telecare.
- Continuing to provide updates and guidance for telecare service providers, as more reliability evidence and good practice is developed.

WHY IS RELIABILITY AN ISSUE?

Analogue signalling relies on tones of strictly defined durations and frequencies. For a digital phone line to transmit the frequencies, it first has to convert the analogue signal to digital. Before being transmitted to the Alarm Receiving Centre (ARC), a signal may be converted multiple times between an alarm and the ARC. This conversion process can introduce distortions which means that the analogue signal cannot be understood by the ARC, causing the call to fail.

Thomas Ozers, Digital Telecare

Richard Parkinson, Farrpoint

WHAT WE KNOW...

It's difficult to predict and it depends on a complex mix of factors. We can't say if an alarm will work or not when connected to a digital line.

It can change. If changes are made in the core of a telephone network or the service user moves to another telephone provider, alarm reliability can change.

There's limited real-life experience. The digital telephone roll-out is in the early stages so we don't know for certain how reliable analogue alarms are.

GSM connected alarms. GSM connected alarms can also suffer failed calls when using analogue signalling protocols.

These are life-critical services. Any disruption could have serious consequences for the citizens who rely on telecare services.

"Organisations must no longer procure social alarms that can only establish connections to Alarm Receiving Centres using analogue tone-based communication."
- TSA

WHAT SHOULD TELECARE SERVICE PROVIDERS BE DOING ABOUT THIS?

- **Monitoring failed calls** - both overall level and to identify issues with individual alarms.
- **Have contingency plans** - be ready to respond in the event of a service user's alarm having reliability issues.
- **Ask you equipment manufacturers for details of the reliability testing they have completed and the results of this testing** - ensure they provide evidence to back up any reliability claims made.
- **Continue to roll our digital alarm devices.**

WHY THIS IS IMPORTANT?

Power supply:
Power is a major issue to consider when using analogue alarms. Should the service user's property lose power, the router will stop working, and so too will the telecare alarm. This cannot be ignored and requires TSPs to intervene, for instance by installing an Uninterruptible Power Supply to maintain power.

Vulnerable people are put at risk:
Perhaps the most famous example of the risks of using analogue alarms over digital lines comes from Sweden, where a 76 year-old man tragically died when his analogue alarm tried and failed to connect.

READ MORE...

We have a wide range of resources and guidance on analogue reliability available on our Playbook. Make sure you check out the following:

- Analogue Telecare in a Digital World
- Analogue Telecare Alarms and Digital Telephone Lines
- Failed Call Data Guidance
- Telecare Alarm Mobile Connectivity Issues

ACCESS OUR PLAYBOOK HERE

telecare.digitaloffice.scot