



ENHANCING ACCESSIBILITY WITH WIFI.

Blackwood

homes | care | support

CASE STUDY

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Region: Scotland



Products/Services: Community WiFi; PfH



Primary Reason for Choice:

- Enhancing Care Conditions for Residents
- Supporting Innovative Clevercogs™ App



ENHANCING ACCESSIBILITY WITH WIFI

A CASE STUDY ON THE COMMUNITY WIFI PROJECT FOR BLACKWOOD HOMES & CARE

The Community WiFi project by Social Telecoms for Blackwood Homes and Care aimed to bridge the digital divide for vulnerable populations in Scotland. Starting as a pilot at Raeden Court in Aberdeen, it expanded to 95 sites, including all Blackwood's care homes. The project, which later included door entry systems, was crucial for the successful implementation of Blackwood's CleverCogs system, a digital care system enhancing residents' independence and quality of life.

The project's success highlights the transformative power of digital inclusion and serves as a model for future initiatives providing community-wide WiFi in social housing.

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INTRODUCTION TO BLACKWOOD HOMES AND CARE.

Blackwood Homes and Care is a pioneering organisation based in Scotland, dedicated to providing accessible, modern, and bespoke housing and care services. Their mission is to help people with disabilities live as independently as possible, and they serve a wide range of clients, including social housing tenants, care-at-home customers, residential care home residents, and night support service customers.

Blackwood operates across 29 out of 32 local authorities in Scotland, reaching over 1,500 social housing tenants, more than 400 care-at-home customers, 60 residential care home residents, and 17-night support service customers. Their commitment to improving the lives of their clients is evident in their innovative approach to care.



IDENTIFYING THE PROBLEM.

Blackwood serves a diverse range of clients. Many of these clients, due to disabilities, age, or complex care needs, face significant barriers to digital inclusion. Internet access, which can greatly improve the quality of life and cognitive performance, is unfortunately not a given for many of Blackwood's clients. In fact, a survey carried out with 174 of their properties found that only 30% already had a home broadband service, a stark contrast to the 84% figure for the general population of Scotland.

Blackwood began to develop its CleverCogs system. This touchscreen home hub, installed in customers' properties, is designed to keep people independent, in control, and in their homes. Its features span care, safety, housing, home automation, information, digital inclusion, and health and wellbeing. A carefully designed system with IT training could increase the levels of digitally included residents in their communities.

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However, for CleverCogs to be effective, it requires a WiFi service to be designed, installed, and maintained to a high level. All internal and external areas within the respective location are to have no black spots and a network strength required to support video and voice calls at all times. The project would comprise of over 1,500 properties across 118 sites inside a 2-year timeframe, although COVID-19 made an impact on the duration of the project.

PROPOSED SOLUTION:

The solution to the problem of digital exclusion faced by residents was a Community WiFi project, implemented in partnership with Social Telecoms. The project began as a pilot at Raeden Court, a widespread care home and general needs community in Aberdeen. Social Telecoms, which had been successfully deploying WiFi networks into social housing communities across the country, had recently expanded into Scotland and set up a new Glasgow-based team of engineers.

The housing complex included homes developed for wheelchair users and people with limited mobility, as well as flats for non-disabled people, all within an integrated community setting.



The Community WiFi service, in conjunction with CleverCogs, would ensure constant connectivity between residents and their relatives and carers, fostering a sense of community and enabling customers to live as independently as possible.

Following the successful delivery of the pilot and the monitored uptake of the CleverCogs system, Social Telecoms was awarded the contract to deliver Community WiFi to the rest of the specified locations. The project ultimately encompassed 95 sites across Scotland, including all three of Blackwood's care homes and the rest of their general needs community. At the time, Blackwood had also allocated network projects to another WiFi provider, but these sites were later taken over and incorporated into Social Telecoms' contract.


Social Telecoms exceeded procurement requirements and compliance by their status as the no.1 ranked supplier to Procurement for Housing's (PfH) telecommunications framework. This led to a direct award to Social Telecoms using lot 1 – Network Communications. PfH is a buying consortium for housing associations that ensures its members not only get the benefits of combined purchasing power but also that suppliers pass stringent quality and service standards. By overseeing the whole process, PfH also ensures that any agreements are fully compliant with EU procurement standards.

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IMPLEMENTATION OF THE PROJECT.

The Community WiFi project rapidly expanded to 95 sites, including Blackwood's care homes Raeden Court in Aberdeen, Belses Gardens in Glasgow, and Broom Court in Stirling. The goal was to ensure all areas of every property had strong WiFi coverage and suitable broadband capacity to allow all users to stream video. In the care homes, residents' properties were equipped with many innovative sensors, alarms, and devices to improve the care service provided by Blackwood. Blackwood set a minimum requirement of 7Mb/s upload per device.

Based out of Social Telecoms' Glasgow office, seven teams of two engineers were deployed to work on the projects around Scotland, with Blackwood's project playing a major part of this. Blackwood defined the order of priority of the sites based on the need and demand for online access amongst their housing stock. Onsite surveys of each site were carried out by the Head of Deployment in Scotland from Social Telecoms. During these visits, they'd identify suitable locations for comms cabinets, determined the route needed for ethernet infrastructure, and pinpointed the optimal locations for WiFi access points, taking into account the building's structure and the materials used in its construction.



Pricing for the sites had been mutually agreed at the start of the project and was based on a set price per WiFi Access Point installed. To ensure coverage was widespread throughout every property, an Access Point was installed into every apartment. The project also included working on new-build sites. For these, collaboration with the building contractors was necessary to have the ethernet infrastructure and power outlets installed to our specification. These new-build projects also included IP Touchscreen door entry intercoms to every property, which Social Telecoms supplied and maintained.

Following completion of the installation, tests were conducted to contribute to the handover documents presented to Blackwood. These tests included a heatmap of the entire site and the download and upload speeds attained in each property. A WiFi heatmap is a visual representation of wireless signal distribution, typically showing signal strength using a colour-coded approach, with the colour green representing areas with a strong signal and the color red representing areas with a weak signal. A complete inventory of the equipment installed and its respective location was also provided.

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RESULTS AND IMPACT.

The Community WiFi project had a significant impact not only in terms of digital inclusion but also in the actual usage of the network. On average, each Blackwood property had 9 client devices in use, averaging around 157 devices per site. This demonstrates the high level of engagement and utilisation of the WiFi service provided.

In the care homes, the usage was even higher, with an average of 18 client devices per property, totalling 832 devices per site. Raeden Court, in particular, had the highest usage with 24 devices per property and a total of 1500 devices. This high usage underscores the critical role of the WiFi service in supporting the care services provided by Blackwood.

Across all sites, on-demand streaming video accounted for roughly 50% of data used. This indicates that the residents were actively using the service for entertainment purposes, further enhancing their quality of life.

These figures highlight the success of the Community WiFi project in achieving its goal of digital inclusion. By providing a reliable WiFi service, the project has enabled Blackwood's clients to stay connected, access a range of online services, and enjoy digital entertainment options.



LESSONS LEARNED AND RECOMMENDATIONS

Anne Jenkins, Head of Digital Services at Blackwood:

"Our journey began with understanding the potential of technology and how it could transform lives. We saw how a robot, connected to the internet, could respond to an emergency in minutes, drastically reducing response times. On the other end of the spectrum, we saw how something as simple as being able to open the blinds in the morning without waiting for care staff could significantly enhance a resident's sense of independence. These scenarios might not seem like they actively use the internet, but they do. They operate in the background, enabled by the foundation of internet access provided by the Community WiFi project. This project has truly been life-changing for our residents."