



October 2024

CASE STUDY

LEVERAGING HOMELINK IOT
TECHNOLOGY TO IMPROVE HOUSING
MANAGEMENT WITH SCOTTISH
BORDERS HOUSING ASSOCIATION



TOGETHER WITH



SBHA IS LEVERAGING
AICO'S HOMELINK IOT
TECHNOLOGY TO ENHANCE
TENANT SAFETY, IMPROVE
EFFICIENCY, AND CREATE
HEALTHIER HOMES.

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The Scottish Borders Housing Association (SBHA) is a Registered Social Landlord and Scottish Charity created for tenants by tenants. As housing issues in the region intensify, with the growing scarcity of available homes and a surge in demand for temporary housing, the role of SBHA has become increasingly vital in recent years. Operating across the Scottish Borders, with over 5,650 homes across 49 settlements, SBHA is committed to addressing these challenges, and places their tenants at the centre of their objectives, providing excellence in housing services, community engagement and affordable, sustainable homes.

MANAGING A WIDE-SPREAD HOUSING STOCK

In their efforts to provide safe and supportive housing to tenants, the Scottish Borders Housing Association faces two key problems due to the vast geographic area in which they operate:

1. **Remote Property Management:** Ensuring compliance and administering asset management from one device or location.
2. **Diverse Property Types:** The diverse range of property archetypes presents unique challenges in terms of maintenance requirements, such as condensation, damp and mould.

To ensure compliance and quality maintenance, a proactive, strategic approach is essential – this requires relevant data to inform their decisions and investments across the short, medium and long-term. By leveraging Aico's HomeLINK technology, the need for costly call-outs for nuisance alarms and inefficiencies would be minimised by having access to the right information, fostering continuous improvement. This will allow SBHA to effectively deliver an efficient service and ensure tenants are safe in their homes.

INTRODUCING AICO'S IOT TECHNOLOGY

To remotely monitor the fire and carbon monoxide (CO) systems in place across their housing stock, and ensure efficient operations, SBHA are trialling Aico's Ei1000G SmartLINK Gateway and HomeLINK Environmental Sensors, installed by the McDermott Group.

The Ei1020 and Ei1025 Environmental Sensors enable SBHA to monitor the environmental conditions within their properties and take proactive measures to reduce the likelihood of problems, whilst engaging with residents via the HomeLINK Resident App. Accessing the data remotely is key in supporting the landlord in delivering a proactive compliance policy, improving communication, and ensuring tenant safety and well-being.



We have worked with Aico for years, taking part in their Expert Installer CPD accredited training program, and fitting their products in partnership with many RSLs. We are excited to be part of the gateway pilot program at SBHA, as this technology will help them provide healthy homes for tenants, by utilising the latest environmental data. Our engineers enjoyed taking part in the CPD training in advance of the pilot so they were confident installing the new system. They have found the Aico SmartLINK installation app easy to use and found the process straight forward. We look forward to seeing the pilot program progress and to see the wider roll out of IoT devices such as environmental sensors across the sector.

*Stevie Watson, Director,
McDermott Group*



IMPLEMENTING PROACTIVE MAINTENANCE STRATEGIES

SBHA is a proactive and innovative organisation, looking to ensure they deliver a “compliance plus” service to their tenants and housing portfolio. To achieve this, SBHA has launched a pilot scheme installing Aico’s Ei1000G Gateway into 31 properties. The gateways were combined with their existing fire and CO alarms, and a new set of environmental sensors (both the Ei1020 & Ei1025).

Each property received one gateway and two of each sensor, with the Ei1020 installed in bathrooms and kitchens, whilst the Ei1025 was installed in the living rooms and main bedrooms. The existing range of Aico fire and CO alarms, already in situ throughout SBHA’s stock were interlinked to the system, taking it to a total of 300 total connected devices across the pilot:

- Ei650iRF RadioLINK+ Battery Optical Alarm
- Ei3016 Optical Smoke Alarm
- Ei208WRF RadioLINK+ Battery Carbon Monoxide Alarm

The goal of this trial is to utilise data to prioritise maintenance, safeguard tenants and provide healthy homes across a diverse and geographically spread housing stock. The data provides support and guidance in multiple ways.





Improved Tenant Communication: The Ei1000G SmartLINK Gateway tracks when events are triggered within the system. The HomeLINK portal gives SBHA the knowledge they need to speak to tenants and diagnose the problems remotely. Additionally, the HomeLINK Resident App provides tenants with real-time property information, reducing calls to the call centre in Selkirk, unnecessary site visits, or incorrect people being sent to address issues within a property, such as sending an electrician to a suspected CO event.

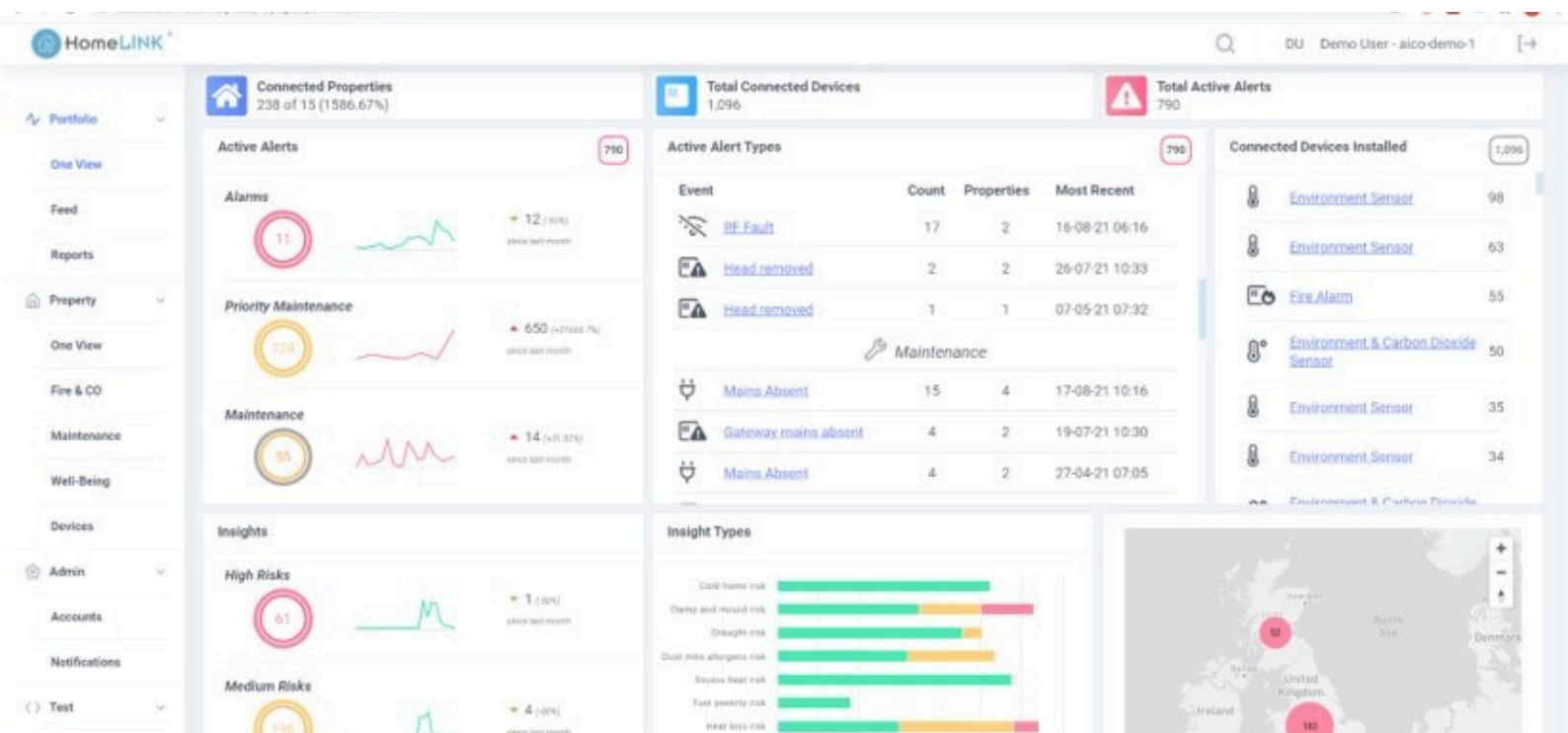


Enhanced Tenant Safety: Remote access to property insights will provide support and guidance by notifying SBHA of CO activations, a significant and under-reported risk in rural areas where many properties use fossil fuel heating systems. With the correct data, early detection is enabled, and the landlord can proactively attend these properties and investigate the activations. Luckily there hasn't been a CO activation to date in the 31 properties during the trial period, and SBHA would like to have this capability in a higher proportion of their stock going forward.



Data-Driven Maintenance: Environmental data is critical in identifying the root cause of condensation, damp and mould amongst other environmental considerations across their varied housing stock, allowing SBHA to prioritise maintenance efforts and address potential issues proactively.

Alongside training and support from Aico's Relationship Manager, Rory Fraser, and National Account Manager, David Richmond, SBHA's Compliance Team have become proficient in using the HomeLINK Portal and reading the data to monitor high-risk properties. Regular data review meetings with HomeLINK and communication with residents has enabled SBHA to get ahead of potential issues where condensation, damp and mould, fuel poverty, or void risk has been identified.





CREATING HEALTHIER, SAFER, MORE SUSTAINABLE HOMES

The SBHA were also looking to find a proactive solution for condensation, damp and mould, with Aico's Environmental Sensors and Gateway proving to be the best solution.

SBHA has had a strong relationship with Aico for many years and, as such, has confidence in the reliability of our products and the support we offer. The ability to connect with their existing smoke and CO alarms made the solution much more attractive, allowing them not only to monitor environmental conditions within properties but ensure their fire systems were compliant and keeping tenants safe.

- The gateway works over the GSM network, which is of particular use to SBHA as their stock is spread over a vast rural area and this solution provided the best coverage, particularly in areas with limited broadband connectivity.
- The products' 10-year lifespan aligns with existing maintenance programs and required little ongoing maintenance after the initial install. If, and when, units need to be changed this can be done as part of the normal maintenance cycles such as when carrying out annual checks or EICRs.

The trial has already generated some valuable data and insights. To further expand the solution's reach and effectiveness, the gateways and sensors will need to be rolled out to more properties. This will allow SBHA to monitor more at-risk homes and build the automatic notifications into their normal ways of working and is something the organisation is interested in doing as the project moves forward.



The Gateway

Aico's HomeLINK Connected Home Solution collects data from radio frequency connected devices (fire and carbon monoxide alarms, and environmental sensors) via the HomeLINK Gateway, converting data into actionable insights that are remotely available via the HomeLINK Portal.

Environmental Sensors

With the integration of HomeLINK Environmental Sensors, the SBHA will be able to monitor temperature, humidity and CO2 throughout properties, viewing actionable insights into condensation, damp and mould, and fuel poverty to create healthier, safer homes. This allows SBHA to make more informed maintenance decisions and address issues remotely, enhancing the quality of living spaces while respecting privacy, safety, and individual property archetypes.



IMPROVING EFFICIENCY AND TENANT SATISFACTION

The addition of the gateway enabled SBHA to remotely access data from their existing grade D1 and F1 Aico alarms without replacing compliant devices. Between September 2023 and July 2024, the system alerted SBHA to 178 device alerts, including:


- Fire activations
- CO activations
- Alarm head removals
- Power outages

All alerts were investigated and addressed through communication with residents or site visits by engineers or housing officers.

Alarm head removals by residents, particularly of CO alarms had been an issue for SBHA, as the risk of CO events is heightened, with much of their housing stock using fossil fuels for heating. The gateway connects to existing Aico CO alarms and, thanks to the portal's automatic notification feature, alerts SBHA when a CO activation occurs. With this information, they can take the relevant action, speak to residents and, where applicable, dispatch gas engineers with the correct PPE to rectify the issue, making sure the appropriate individuals are notified.

Additionally, the gateway is a valuable tool for the SBHA Compliance Team, enabling proactive device and replacement date tracking. This allows the team to efficiently plan replacement programmes and ensuring compliance.

Moreover, the Compliance Team has analysed and continually monitored the environmental data for changes. Where applicable, they have used the data to drive interventions, such as fitting new bathroom fans or discussing issues with tenants and working together towards a solution. In doing so they have been able to get ahead of multiple potential high-risk properties and monitor ongoing cases, whilst opening new chains of communication with tenants. This proactive approach has helped SBHA to identify issues before tenants report them.



The pilot has provided information that is supporting various work streams to provide a holistic approach to Damp & Mould. We are adding a Damp & Mould Awareness video to our refreshed website – due to be live by end 2024. The pilot will help us to prioritise vulnerable tenants by using environmental data to target interventions. We are now looking at the root cause of the D&M – not the symptoms.

Our next steps are to look at the other contributing factors to damp and mould. We will also identify the types of properties that are prone to damp and mould and plan to rectify issues.

*Julie Wilby, Head of Program and Delivery,
Scottish Borders Housing Association*



LOOKING TO THE FUTURE

Moving forward, SBHA hope that they will be able to roll out this technology to a wider portion of their stock, using the data to improve the lives of their tenants. This, alongside training and support from Aico, will be used to upskill everyone within the organisation, including installers, housing officers, call handlers and many more to ensure the safety of their tenants remains their highest priority.



SBHA have worked with Aico for many years and this pilot program is the next step in their compliance plus approach. We have supported SBHA throughout the pilot journey from pre installation, on site install support and data review training after. The team at SBHA have engaged with the data and are starting to utilize this in their policies and decision making going forward. As they look towards a larger roll out, this technology will aide them to let data drive their decision making and to get ahead of environmental concerns. They will also use this technology to aide with their compliance plus approach and monitor assets in real time.

*Rory Fraser, Relationship Manager,
Aico*



To find out more about HomeLINK Environmental Sensors and how they can help provide safer, healthier and more sustainable homes, please visit: www.aico.co.uk/homelink