

THE CONNECTED HOME SOLUTION

۲

۲

# HomeLINK by Aico



Connected home technology that puts your housing portfolio and resident safety first.

# Contents

#### **Overcoming challenges with IoT**

The rise of IoT in the housing The benefits of IoT How can IoT help to combat of Achieving net zero with IoT How can IoT address the UK's

#### **The Connected Home Solution**

How the HomeLINK Connected Ei1000G Gateway 3000 Series HomeLINK Environmental Ser The HomeLINK Portal HomeLINK Portal Insights Enhance resident engagement HomeLINK Case Management

#### **Technology in action**

Mid Devon District Council: Fo BBC Morning Live

#### **Further information**

Standards, regulations and leg including, PAS 2035, Homes Act 2018, The (Fitness for Human Habitation) (Wales)

Funding and Support

Award-winning technology

**Customer Testimonials** 

۲

sector	4
	5
disrepair?	6
	8
fuel poverty crisis?	9

ed Home Solution works	12
	14
	15
nsors	16
	17
	18
t with the HomeLINK App	20
-	21

ostering	Sustainable	Housing	24

28

34

<b>gislation</b> The Renting Homes Regulations 2022 and EESSH2	29
	32
	33

# The Rise of IoT in the Housing Sector



Internet of Things (IoT) and connected home technologies are already transforming how we view the indoor environment. Without the data these devices provide, we are effectively blind to the healthiness of our homes.

With tightening legislation around requirements for landlords regarding the health and safety of their housing stock, and growing public concern surrounding disrepair, IoT is one of the few remaining options for landlords to turn to, in order to combat poor ventilation, high carbon dioxide levels, low energy efficiency, fuel poverty and damp & mould.

Aico's HomeLINK Connected Home Solution enables landlords to gather data remotely from connected fire and carbon monoxide alarms and environmental sensors, with all the information available via an online portal segmented by high, medium and low risk.

Bring a new level of efficiency for management and maintenance, while providing an enhanced resident experience. This technology promises to turn the landlord-resident relationship from 'us vs them' to one of a 'win-win'.



## The Benefits of IoT

#### **Return on Investment**

Real-time data allows a detailed insight into the health and safety of connected homes, enabling proactive measures and preventative maintenance. By streamlining services our platform offers a net return on investment.



#### Improved fire safety

Benefit from complete transparency into the status of connected fire and carbon monoxide alarms, with details on replacement dates, testing and potential faults. Residents can also receive regular alarm testing reminders via the HomeLINK App.

	_		
	-		
	-		
	$\checkmark$	_	

#### Compliance

Adhere to requirements outlined in standards and legislation, such as the Homes (Fitness for Human Habitation) Act 2018, The Renting Homes (Fitness for Human Habitation) (Wales) Regulations 2022, PAS 2035, and the Energy Efficiency Standard for Social Housing.

۲



#### Data-driven decisions

Data allows your organisation to make informed decisions. Identify the properties that are most at risk and deploy resources more efficiently and effectively.

#### Net Zero

Pre- and post-retrofit monitoring enables landlords to target their worst performing properties first and ensure their investments provide more comfortable and efficient homes as intended.



#### Health and wellbeing

Alerts, insights and recommendations are provided via the HomeLINK App. Residents are provided with a healthy home rating, temperature, humidity and carbon dioxide data and handy advice on the measures they can take to improve the quality of their home's environment.

# How can IoT help to **combat disrepair?**

**Identify and target** poor-performing homes before disrepair becomes a greater concern

With the number of disrepair claims increasing within the social housing sector, combined with aging housing stock and strict regulations, such as the Homes (Fitness for Human Habitation) Act 2018, landlords are under immense pressure to ensure the provision of safe and healthy homes for residents.

IoT enables landlords to identify disrepair before it becomes a problem. Through deploying a suite of sensors and analysing the data received via machine learning, IoT technology provides a holistic view of property conditions remotely, enabling a proactive approach to property maintenance.

#### (i) View the insights on page 19

۲

## **The HomeLINK Portal for Landlords**

Intelligent environmental sensors provide actionable insights, enabling the prediction of indoor environmental conditions that can lead to disrepair, such as damp and mould; as well as providing a tool to evidence that the implemented measures, e.g. ventilation systems, are working as planned, reducing the risk of disrepair.

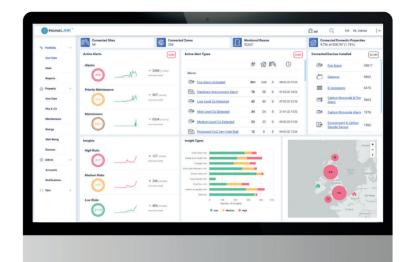
With the ability to monitor an entire housing portfolio, landlords are equipped with the knowledge to deploy their resources effectively, identifying and targeting poor-performing homes before disrepair becomes a greater concern.

## **The HomeLINK App** for Residents

Disrepair can also be prevented through engaging tenants with the HomeLINK App for residents. By empowering tenants with their data and personalised insights, landlords will see improvements in the maintenance and health of their stock with less intervention.









## Achieving net zero with IoT



# for retrofit works

Heating and cooking in the nation's 29 million homes are responsible for **20%** of the UK's total carbon emissions, with residential electricity use contributing around a further **5%**. Therefore, improving the energy efficiency of our housing stock is essential to achieve the UK's net zero targets within the housing sector by 2050.

PAS 2035 is a new overarching standard for installing energy efficiency measures in domestic retrofits. Through utilising HomeLINK technology, landlords can capture a detailed picture of how well their housing stock is performing in terms of **energy efficiency** and accurately identify the right properties for retrofit - which is key to the net zero transition.

This challenge is likely to grow as the nation begins an ambitious programme to retrofit existing homes to make them more energy efficient, as 80% of the houses that will be around in 2050 already exist.

Increasing insulation is not always the answer stopping draughts and airflow can lead to other issues, such as an increase in condensation and mould. That is why a whole house approach must be taken, tailored to suit individual tenants and buildings; this will be impossible to achieve at scale without accurate data.

Our environmental sensors assist landlords in complying with **PAS 2035** by:

- · Identification of the worst-quality homes for targeted decarbonisation funding
- Monitoring pre-retrofit conditions such as temperature, humidity, carbon dioxide, thermal performance and ventilation
- Providing a method to survey occupants remotely and automatically via the HomeLINK App to ensure retrofit design intent is met
- Monitoring and evaluating performance of a landlord's housing portfolio across all seasons post-retrofit to ensure design intent is met and maintained

(i) View the insights on pages 18-19

# How can IoT address the UK's fuel poverty crisis?



Households across the UK will have received their revised energy bill, with growing concer on how they can afford to keep their homes warm amidst the dramatically increasing fuel costs.

With spiralling costs of energy, food and fuel, we are likely to see even more households struggling to afford to heat their homes.

Fuel poverty is a long-standing challenge in the UK, with most recent government statistic demonstrating that three million households are affected in England alone, many of which live in some of the country's poorest insulated homes

The scale of the challenge created by the cos of-living crisis means that we now need to be developing different approaches that can help Britain stay warm.

Aico's state-of-the-art HomeLINK Environmental Sensors capture not just the temperature of a home, but also assess indoor

ns	air quality, triggering alerts for landlords which allow them to intervene if a household is identified as being in fuel poverty.
CS	Recognising households in need of support can be the first critical step in addressing the issue. Modern sensor technology provides a much more efficient and effective way of doing this than traditional stock condition surveys or tenant outreach programmes, with landlords receiving this data remotely, via the online portal.
d st- p	As well as helping tenants and residents, data from environmental sensors can also provide a wider set of benefits. Capturing and analysing data from individual properties can provide a real-time picture of the condition of their stock, which assists in the development of evidence- led asset management strategies that target improvements where they are most needed.



MULTI-SENSOR FIRE &

00

# The Connected Home Solution

By leveraging the power of HomeLINK's data, you no longer have to wait and react to emergencies. Plan ahead, optimise resources and reduce inconvenience.

10

+



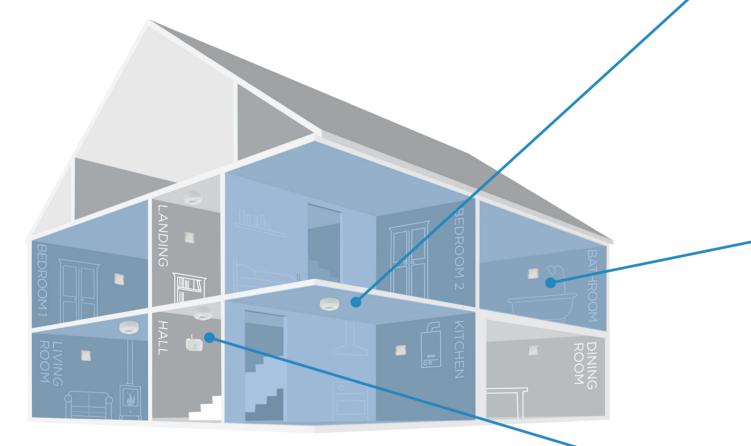
			F
		4	l
		1	
JT Jordan Touloss-sico, homelink, demo     J		3	
9 inter 17 6 inter 17 inter 14 17		1	•
		T	¢
		1 1	

# **Open the door to safer, healthier** and more sustainable homes, while generating a return on investment.

# How the HomeLINK Connected Home Solution works

The HomeLINK Connected Home Solution consists of a network of fire and carbon monoxide alarms, environmental sensors and the Ei1000G Gateway that connects them all.

Install alarms and environmental sensors by scanning the device's QR code via the Installer app and follow the instructions. The Gateway must be installed to provide communication to the HomeLINK Portal.



### Where to install environmental sensors

#### Bathroom

A high-risk area for condensation, damp and mould due to high humidity and inadequate ventilation.

#### Kitchen

A high-risk area for condensation, damp, mould and excess heat due to potentially limited ventilation and increased humidity from cooking.



#### Living Room

Residents are likely to spend a lot of time here, increasing  $CO_2$  levels from high occupancy and smoking.

#### Bedroom

Residents spend a significant amount of time sleeping and it can be a risk area for allergens e.g. dust mites.



#### **3000 Series Alarms**

Aico's 3000 Series of fire and carbon monoxide alarms are connected to the Gateway via radio frequency technology - simply plug the Ei3000MRF module into the alarm head.

Information is collected from all connected alarms in real-time via the Gateway, with the information available on the HomeLINK Portal.



#### **HomeLINK Environmental Sensors**

HomeLINK Environmental Sensors are installed in high-risk rooms to monitor temperature, humidity and carbon dioxide levels. The data is collected by the Gateway with actionable insights available via the HomeLINK Portal.



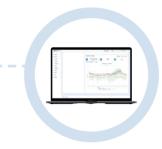
#### **The Gateway**

۲

The Gateway is installed within the property and extracts information from connected alarms and environmental sensors. The data is interpreted by advanced machine technology and translated into actionable insights within the HomeLINK Portal.



Visit our website to find out more about the Connected Home Solution



#### **HomeLINK Portal**

Insights are displayed via a userfriendly portal. Data is extracted from all connected alarm heads and environmental sensors with room specific insights presented by high, medium and low risk.



#### HomeLINK App

Residents will receive tailored recommendations, advising them on how to remedy issues or prevent them occurring.

#### **EI1000G GATEWAY**

# The hub of the HomeLINK Connected **Home Solution**

Aico's alarms and sensors connect with the Gateway; an innovative and award-winning system that provides insights into the health and safety of connected homes.

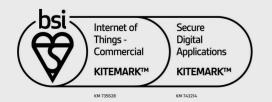
The Ei1000G uses wireless interconnection technology to link every alarm and sensor in a property to give you a full picture via the online HomeLINK Portal.

Maintaining data for properties is complex and time-consuming. Gaining access to every property can be an issue. The reassurance of your alarms working to protect your residents is vital, as well as knowing that your housing portfolio is not at risk of developing poor indoor environmental conditions, such as damp and mould.

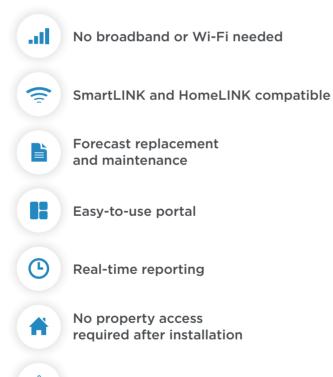


# The Gateway is one of few products to achieve...

the BSI Kitemark for Internet of Things (IoT) Commercial. The BSI tested the connectivity and communications within the system, the associated mobile app and cloud portal, as well as the data encryption and security of the system.



#### **Benefits of the Gateway**



- **Email and SMS notifications**
- E Reduce costs and improve efficiency
  - Compliance with standards & legislation e.g. PAS 2035 and the Homes Act

 $\checkmark$ 

Improved home life safety

# THE 3000 SERIES

The technologically advanced 3000 Series provides whole property coverage, detecting both fire and carbon monoxide (CO).



# **Fire and Carbon Monoxide Protection**

# **Environmental Sensors**

Unobtrusive and secure, our HomeLINK Environmental Sensors are placed throughout the home to monitor temperature, humidity and carbon dioxide ( $CO_2$ ), providing actionable insights into challenges such as damp and mould risk, energy efficiency, ventilation, excess cold and heat and indoor air quality. Data insight enables the creation of healthier, safer homes for residents through improved forecasting and maintenance of property conditions.



**Ei1025** Temperature, humidity & CO<sub>2</sub>

Also available...

Ei1020 Temperature & humidity

# Actionable insights to create safer and healthier homes for your residents

۲

	Environmental Sensors	Ei1020	Ei1025
$\Diamond$	Condensation, Damp, Mould	•	•
<u>}</u> }	Heat Loss	•	•
*0	Excess Cold	•	•
¢I	Excess Heat	•	•
CLO	Indoor Air Quality		•
ال ال	Draught Risk		•
(Ŀŝ-	Void Risk		•
¢ <sub>¢</sub>	Dust Mite Allergy Risk		•
Ø	Head Removed	•	•
٩	Sensor Fault	•	•
	Low Battery	•	•

Find out more here



# **The HomeLINK Portal**

From identifying an environmental risk - for example, poor indoor air quality or damp and mould - to knowing if there are maintenance issues such as an alarm head removal from the baseplate or low battery, our diverse insights and alerts have been built and optimised with social landlords and their needs in mind.

Future-proof your housing portfolio



View top-level data at the portfolio level or drill down for deeper insights to tackle problems, maintain compliance and enable preventative strategies down to a property level. With In-Portal Notes, you have the ability to log actions and interventions against a property that have been completed or are planned.

Meanwhile, the HomeLINK App provides your residents with the same data, acting as a first line of defence and allowing residents to take the first step to improving the quality of their homes without landlord intervention.

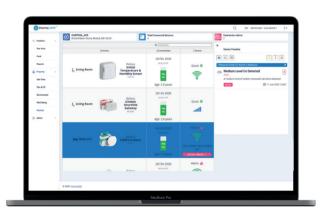


## **HomeLINK Portal Insights**

#### Monitor fire and carbon monoxide alarms to improve compliance and asset management

The portal will provide an insight into the status of connected smoke, heat and carbon monoxide alarms across your entire housing stock.

Remote management of connected alarms enables landlords to track their performance in real-time. The portal provides valuable information to support compliance, such as alarm age and replacement dates, enabling a proactive response across an entire housing portfolio.





Reporting is also available for alarm events relating to resident safety. For example, if an alarm head has been removed from the baseplate, or how long it has been since an alarm has been tested.

Alerts can be set up for alarm events, e.g. if low, medium or high levels of carbon monoxide are detected, or if a fire alarm has been triggered within a property. With notifications, resident safety is at the forefront, enabling an immediate response to potentially life-threatening situations. This information provides the opportunity to engage with residents directly about fire and carbon monoxide safety.

Insights into connected alarm systems allow you to forecast maintenance, stay compliant, reduce costs and improve efficiencies.

#### Assess temperatures to identify fuel poverty

The energy crisis is set to cause a rise in fuel poverty across the UK. The HomeLINK Environmental Sensors are a powerful tool in recognising which homes, and the families who live there, are most at risk.

Through analysing room temperatures across housing stock, landlords can see which homes are significantly underheated, allowing intervention to improve living conditions before the cold temperatures lead to health problems for the resident.



#### Combat the underlying issues of damp and mould with actionable insights

The HomeLINK Portal provides powerful insights into the risk of damp and mould developing within a property through monitoring temperature and humidity.

By placing environmental sensors in high-risk areas, landlords can benefit from room-specific insights to accurately identify the effected location, as well as if the cause is structural or environmental.

Damp and mould usually forms due to a number of factors rather than one specific cause. HomeLINK's unique super insight provides a deeper analysis into temperature and humidity to help understand whether damp and mould is a structural issue, such as a leaky pipe or rising damp, or an environmental issue, such as heating patterns of a property. With this powerful remote data insight, not only can you understand which room an issue is located in but also the root cause of the problem.

Early detection of potential problems enables the correct allocation of resources to repair the homes that need immediate attention, ensuring residents have access to a healthy indoor environment.

#### Deeper insights and trends to identify houses for retrofit and achieve net zero goals

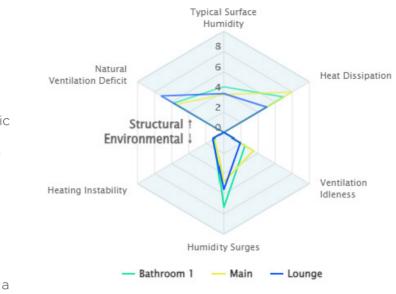
Target properties that need improving the most, for the biggest impact first. The path to retrofitting at scale means optimising the level of retrofit required across your housing portfolio in pursuit of net zero.

Understand which properties require what retrofit solutions with our platform - from draught and ventilation issues to heating and cooling performance, all highlighted on the HomeLINK Portal.

With retrofit projects happening at scale, it's important that landlords also have an effective way of measuring the success of the project and ensuring there are no unintended consequences for residents, e.g. an increase in damp and mould due to less air flow.

۲

۲



# Identify if the cause of damp & mould is environmental or structural

The HomeLINK Environmental Sensors can collect data on post-retrofit conditions such as temperature, humidity, carbon dioxide, thermal performance and ventilation to ensure retrofit design intent is met and maintained.



#### **Energy Data**

With unprecendented increases in energy costs, we will be able to provide you and your residents with data direct from their smart meters. This will assist with PAS 2035 compliance, identifying households potentially living in fuel poverty and give residents the power to reduce their energy consumption.

#### **Intervention Analysis**

Visualise how the actions you have taken in a property have impacted the internal environment; has a fabric first approach maintained the temperature but reduced energy consumption as much as you hoped? Did giving a resident access to the HomeLINK App reduce the damp and mould risk? By installing insulation, has there been an unintended consequence of reducing air quality?

## **Enhance resident engagement with the HomeLINK App**

"

By empowering residents with their data and personalised insights. landlords will see improvements in the maintenance and health of their stock with less intervention, while residents can save money by running their homes with energy efficiency in mind.

With the HomeLINK App, residents are provided with a healthy home rating, temperature, humidity and CO<sub>2</sub> data and handy advice on the measures they can take to improve the quality of their home.

When fire and carbon monoxide alarms are interlinked with the Gateway, the HomeLINK App will notify residents with testing reminders and alarm activation events.

Besides helpful tips and advice on how to better their living environment, the app also helps by providing extra information including why taking these steps is important or what could happen if they didn't act.

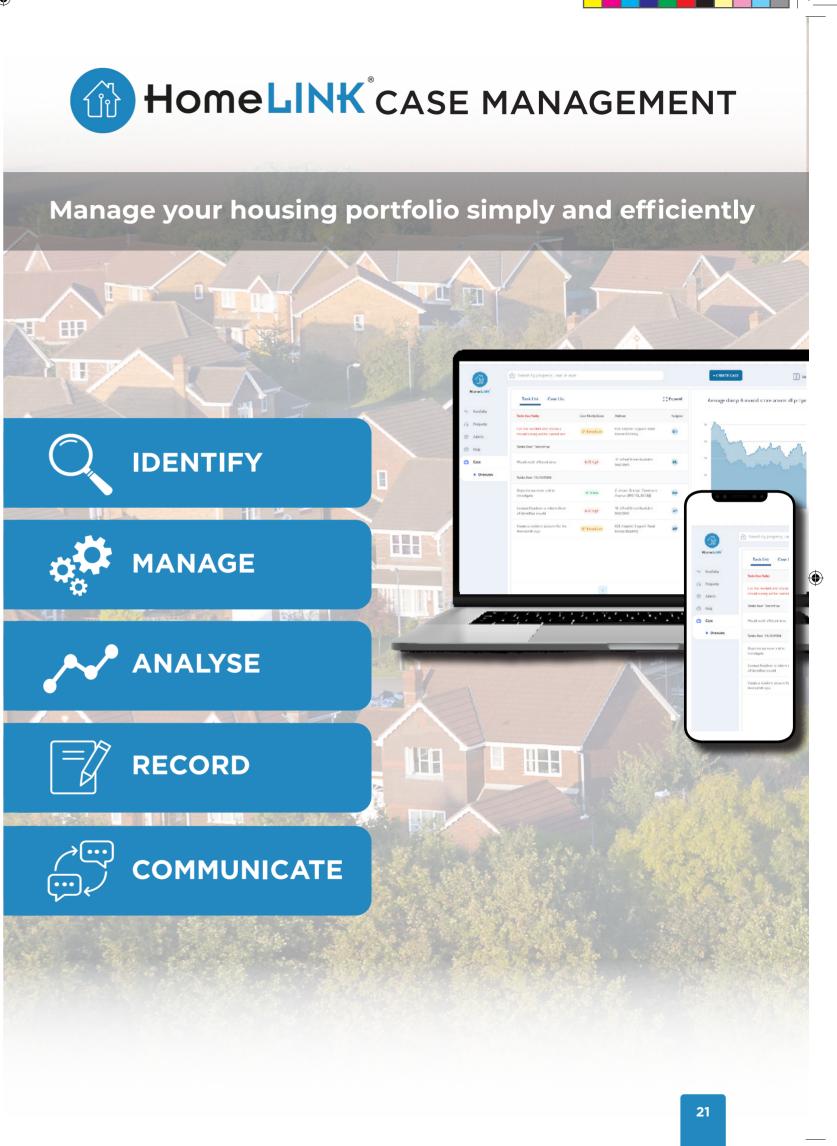
Equipping residents with knowledge and awareness - paired with reminder notifications, personalised data and insights - is key in the fight against issues such as fuel poverty, damp and mould, fire risk and more.

#### Making safer, healthier, happier homes.



#### I was initially sceptical about what the sensors and HomeLINK technology being put into my home would bring in terms of financial or health benefits. But, by recording moisture in the air, I can be alerted to the risk of damp and mould. Rather than having to keep an eye out for these things myself, my landlord knows when it is time to come and do repairs or maintenance work on the property. "



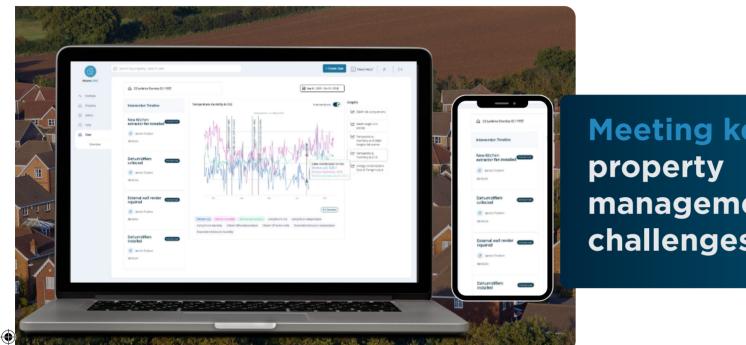




Watch the video to learn more

# **HomeLINK Case Management**

The innovative HomeLINK Case Management (HCM) system is an advanced tool designed to address landlords' biggest challenges in maintaining safe and compliant homes. HCM provides landlords with a comprehensive, intuitive solution to manage issues such as damp & mould, with plans to expand into fire and CO compliance and decarbonisation in future updates.



**Meeting key** management challenges

"

#### "

HCM is a direct response to the needs and concerns of landlords, delivering a robust solution that not only makes compliance easier but also promotes proactive management and tenant satisfaction.

#### **Chris Jones**

Product Director, Aico

Aico's HomeLINK Case Management System helps landlords address each stage of case management with greater ease and effectiveness

#### Identify

By using data insights and resident surveys, landlords can identify property issues quickly. This enables them to proactively detect and assess problems, enabling faster, more targeted responses.

#### Manage

HCM allows landlords to manage their entire property portfolio without requiring preinstalled hardware, although optional device installation can provide deeper insights. Cases are easily created and assigned to team members, with task management features that ensure issues are tracked and resolved from start to finish.

#### Analyse

With powerful new data visualisations, landlords gain unique insights into property conditions, including comparisons with portfolio and national averages. HCM also enables landlords to overlay interventions, such as upgrades to insulation or heating, to see whether these efforts improve outcomes over time.

#### Record

HCM's comprehensive record-keeping captures every detail of case management, from maintenance updates to resident feedback, ensuring full transparency and compliance. Additionally, a complete audit trail for each case guarantees accurate record-keeping and supports regulatory requirements.

#### "

and tenant engagement.

#### Jordan Toulson

Product & Success Manager, Aico

# **Seamless** integration with the HomeLINK **Portal**

#### Communicate

Landlords can now communicate directly with residents through the HomeLINK Resident App, keeping them informed and engaged. The platform allows landlords to request surveys and up-to-date photos of issues, with tools to track changes over time, improving tenant satisfaction.

The innovative HomeLINK Case Management (HCM) system is an advanced tool designed to address landlords' biggest challenges in maintaining safe and compliant homes. HCM provides landlords with a comprehensive, intuitive solution to manage issues such as damp & mould, with plans to expand into fire and CO compliance and decarbonisation in future updates.

#### By developing HCM, we're equipping landlords with the tools they need to navigate their biggest challenges in a way that is both practical and proactive. HCM is not only a case management tool but a game-changer for compliance



"

# CASE STUDY Mid Devon District Council





# homes with **IoT**

# **Fostering Sustainable Housing**

Mid Devon District Council's commitment to sustainable development took a significant leap forward with the completion of the St. Andrews House development in Cullompton. Partnering with European market leader in home life safety, Aico, and ZED PODS, a leading innovator in eco-friendly modular housing, the council delivered a groundbreaking project that sets new standards for social housing in the South West region. Mid Devon Council, with Aico, integrated advanced Internet of Things (IoT) technology to better monitor environmental data from within the homes to improve living conditions for residents.

# **Building Tomorrow**

The St. Andrews House development represents a pivotal moment in Mid Devon's efforts to address the pressing need for affordable, sustainable housing. Located in Cullompton, on a site previously occupied by garages and car parking, the project aimed to provide modern, energy-efficient homes while minimising the environmental impact of construction and operation. ZED PODS' expertise in modular construction and sustainable design made them the ideal partner to work on the development of 6 zero operational carbon apartment homes. Each house has an estimated carbon saving of 10

ŦŦ

24

tonnes per year, and estimated water saving of 107,690 litres per year, as stated on ZED PODS' website.

By embracing innovative approaches to construction and home life safety technology, the council are successfully delivering ecofriendly properties that meet the needs of both residents and the environment. The integration of Aico's fire and carbon monoxide (CO) alarms and HomeLINK IoT technology not only enhances the safety and comfort of residents, but also sets a new standard for sustainable housing in the South West region.



# **Enhancing Fire, CO and Environmental Protection**

The fire and CO alarm systems throughout St. Andrews House utilise Aico's Ei3028 Multi-Sensor Fire and Carbon Monoxide Alarms in kitchens, Ei3016 Optical Smoke Alarms in hallways, and Environmental Sensors sited in the kitchen, living room and bathroom.

Aico's HomeLINK Gateway connects with 3000 Series fire and CO alarms with the Ei3000MRF SmartLINK Module installed, and HomeLINK Environmental Sesnors to complete the HomeLINK Connected Home Solution. Data about alarm systems and property environment is transmitted to the online HomeLINK Portal.

Aico's Ei1025 Environmental Sensors monitor temperature, humidity and indoor air quality. This information is invaluable to councils such as Mid Devon, as the data can be used to monitor environmental conditions. make more informed maintenance decisions, and tackle issues such as damp and mould, without even visiting the property.



# **Addressing Damp and Mould Issues**

A new amendment to the Social Housing Regulation Act 2023 introduced Awaab's Law in the wake of the tragic passing of two-year-old Awaab Ishak, caused by damp and mould in his home. Awaab's Law requires social landlords to fix damp and mould within strict time limits, and so it is important the housing associations and social landlords have the technology available to combat these issues more efficiently.

Every day, Aico record over 41,000 mould insights with their HomeLINK technology. According to HomeLINK data, the most common room for damp and mould risk is a bathroom, with living rooms being the lowest risk. The 'Signature of Mould' insight on the portal gives a detailed vision

of the most likely causes on mould in specific rooms within a property, by displaying a graph covering certain heat, ventilation and humidity factors - such as heating instability and natural ventilation deficit. Additionally, temperature data will assist the council in identifying households potentially living in fuel poverty and giving them the power to see where energy consumption can be reduced.

The HomeLINK portal also allows Mid Devon to monitor the fire safety compliance of St. Andrews House, notifying them if an alarm head has been removed from its base, if there has been an activation, mains absence, fault, or if an alarm has reached its replacement date.

# Typical Surface H

# **Highlighting Key Benefits**

If Mid Devon choose to, they also have the option to rollout the HomeLINK App for Residents to empower their tenants to take control of their home's health. The mobile app presents the collected data into a more userfriendly interface which can still be broken down into a view of each room. 'Linky', the app's house mascot, gives the user a clear idea of their home's health with its changing colours (green, orange and red) and facial expressions. The app will remind the resident when an alarm test is due and give them tips on how to improve their home's health according to the existing data. Giving residents access to this information keeps them engaged and proactive in improving their home's environment.



#### Energy Efficiency Improvements

The deployment of Aico's HomeLINK Gateway and Environmental Sensors will result in the ability to monitor and potentially reduce energy consumption within the homes, equating to lower energy bills.

۲

The council can leverage data on the HomeLINK portal to make informed decisions regarding energy efficiency measures. This data-driven approach allows for continuous improvements and adjustments, ensuring the long-term sustainability of the retrofit properties.

The development of St. Andrews House in Cullompton stands as a testament to the power of collaboration and innovation in addressing the challenges of affordable housing and environmental sustainability. Through strategic partnerships with ZED PODS and Aico, Mid Devon District Council has set a precedent for future social housing projects, emphasising the importance of eco-friendly design and advanced safety technology in creating thriving communities.

26

۲





Improved Indoor Environmental Quality

Environmental Sensors will help to monitor and maintain optimal indoor conditions, enhancing the health and well-being of residents.



Net-Zero Progress

Mid Devon Council will make substantial strides towards achieving net-zero targets. The success of this pilot project will lay the foundation for future retrofit initiatives in the region.

# BBC Morning Live



The HomeLINK Connected Home Solution has featured on an episode of BBC Morning Live, showcasing how Poplar HARCA are utilising IoT within their housing portfolio.

#### "

We have sensors installed within our properties, which measure things like heat and humidity and from that we can work out heat loss and lots of different things, enabling us to use our resources wisely.

"

**Lizzie Williams** Assistant Director of Asset Management, Poplar HARCA



Watch here

۲

# Standards, Regulations and Legislation



The HomeLINK Connected Home Solution assists social housing providers in maintaining compliance with standards, regulations and legislation surrounding fire and carbon monoxide, fitness for human habitation and sustainability.

#### PAS 2035

The UK's housing sector is under pressure to deliver an extensive retrofit programme to meet the government's ambitious targe of net zero emissions by 2050.

With the majority of the country's housing stock currently failing to meet adequate levels of energy efficiency and sustainabilit and no previous overarching standard for retrofit delivery, PAS 2035 was introduced by BEIS and BSI to ensure any domestic retrofit meets the outlined energy efficience requirements.

The standard has been in place since 30th June 2021 and compliance is mandatory for all domestic retrofit projects.

The guidance outlined in PAS 2035 relates to the identification of homes that require

28

e et g	additional energy efficiency measures to improve the overall performance of a residential building. Compliance with PAS 2035 also requires landlords to monitor the post-retrofit conditions to ensure the retrofit design intent is met with no unintended consequences.
cy bor	The HomeLINK Connected Home Solution enables landlords to remotely monitor their housing stock and evaluate post- retrofit conditions such as temperature, humidity, carbon dioxide, thermal performance and ventilation. Through the accompanying HomeLINK App for residents, landlords are able to survey their tenants to ensure the retrofit project is performing as expected.

#### Homes (Fitness for Human Habitation) Act 2018

The Homes (Fitness for Human Habitation) Act 2018 applies to both the social and private rented sectors to ensure that all properties are fit for human habitation throughout any tenancy.

To comply with the legislation, landlords must take the necessary measures to ensure that their properties are free of any hazards that would deem a property unfit for occupancy.

In the case that a landlord fails to meet their obligations to provide a safe and healthy home, their tenant has the right to take legal action for breach of contract. If the court determines that a landlord has not provided a home that is fit for human habitation, a landlord may be told to take the appropriate action to reduce or remove the hazard and/or damages or pay compensation to their tenant.

The legislation also requires compliance with the Housing Health and Safety Rating System (HHSRS). The HHSRS is a risk based evaluation tool that provides guidance for landlords in relation to the safety of their housing stock, outlining the hazards and disrepair to be avoided. It covers a large variety of hazards, from environmental factors such as damp and mould to fire safety.

Through remote monitoring of housing stock via the HomeLINK Connected Home Solution, landlords are able to identify when homes are at risk of poor environmental conditions or are breaching fire safety guidance - enabling proactive maintenance and repairs.

#### The Renting Homes (Fitness for Human Habitation) (Wales) Regulations 2022

From 1st December 2022, landlords in Wales must comply with The Renting Homes (Fitness for Human Habitation) (Wales) Regulations 2022. The new regulations are designed to ensure that private and social rented properties in Wales are fit for human habitation, including the provision of an adequate fire and carbon monoxide alarm system.

The guidance also outlines the obligations placed on a landlord to ensure a home is fit for human habitation from the beginning of the tenancy and throughout.

Damp and mould growth is one of the 29 matters, and includes house dust mites and mould or fungal growth. Both are caused by dampness and/or high humidity, which are influenced by:

- Reduced ventilation levels
- Increased humidity, particularly above 70%
- Warmer indoor temperatures in winter because of dwelling design in renovated houses

Preventive measures are important in combatting damp and mould, responding proactively in affected areas before conditions worsen.

The HomeLINK Connected Home Solution can assist landlords in the accurate identification of homes that may be at a higher risk of developing poor environmental conditions, such as damp and mould, or are breaching fire and carbon monoxide safety legislation enabling preventative maintenance.



#### New Standards & Outcomes for Social Landlords, Outlined by the Scottish **Social Housing Charter**

Addressing damp and mould is a critical priority for social landlords in Scotland, and new prevention and effective resolution. Starting in May 2026, social landlords will be required to report on the following key indicators::

- Aico's HomeLINK technology allows landlords to reporting requirements from the Scottish Housing distinguish between all potential causes through Regulator will place greater emphasis on proactive its Damp and Mould Insight. This enables landlords to identify contributing factors, such as natural ventilation, heating patterns and humidity surges. Combined with actionable insights, this empowers • Average time taken to resolve damp and/or landlords to mitigate the risks before they become mould cases by cause. bigger issues, eliminating guess-work, enabling more effective interventions and improving • Percentage of damp and/or mould cases resident living conditions.
- resolved by the reporting year-end.
- Additionally, Aico's groundbreaking case • Number of damp and/or mould cases open at management software can also support social year-end. landlords in reporting the required indicator data For each indicator, landlords are to provide a with ease.

breakdown of cases caused by condensation or

#### Awaab's Law

Following the tragic death of Awaab Ishak in 2020 as a rdirect result of exposure to damp and mould in the social home his family rented, Awaab's Law has been introduced to the Social Housing Regulation Act 2023. The new law requires landlords to investigate and fix reported health hazards within specified timelines. Maintaining compliance under Awaab's Law involves multiple key steps:

- Investigating 29 HHSRS defined hazards within 14 days of reporting.
- Providing a written summary of findings, the • repair timeline and schedule to residents within 48 hours of investigation completion.
- Addressing hazards of significant risk within 7 days of the written summary. Emergency repairs must be done as soon as possible, within 24 hours.

The timeline for works completion should reflect the nature of the problem and needs of tenants, such as repairing heating systems more urgently during colder months. Records for all attempts to comply with the proposals must be kept, including all correspondence with the resident(s) and any contractors.

To ensure compliance scheduled property inspections and regular communication with the tenant(s) should be in place to ensure living conditions meet expectations and areas for improvement are identified. Damp and mould

structural issues within a property.

related issues should be addressed promptly, and landlords and tenants should be educated on the behaviours positively and negatively impacting on damp and mould in the home.

Aico's HomeLINK Connected Home Solution empowers landlords to comply with Awaab's Law and create healthier homes. The system monitors environmental factors like temperature, humidity, and air quality, and provides data on potential issues such as damp and mould. The HomeLINK Portal displays this information with key insights and guidance to streamline operations and early intervention, while residents use the HomeLINK App for reminders and home improvement suggestions.



#### EESSH2

۲

The Energy Efficiency Standard for Social Housing post 2020 (EESSH2) supersedes the Energy Efficiency Standard for Social Housing (EESSH); the guidance encourages landlords to improve the energy efficiency of social housing in Scotland. To support this, landlords may want to collect data on carbon dioxide, temperature and humidity, before and after projects.

The aim of the standard is to help remove poor energy efficiency as a driver for fuel poverty and contribute to achieving the Scottish Government's climate change emissions reduction targets.

The EESSH 2032 milestone requires all social housing meets, or can be treated as meeting, EPC Band B (Energy Efficiency rating), or is as energy efficient as practically possible, by the end of December 2032 and within the limits of cost, technology, and necessary consent. In addition, no social housing below EPC Band D should be re-let from December 2025, subject to temporary specified exemptions.

Aico's HomeLINK Connected Home Solution can assist landlords in assessing the energy efficiency through environmental monitoring. The invaluable data provides insights for landlords to accurately identify the homes that would benefit from retrofit to improve energy efficiency.

# Award-winning connected solution for social housing and landlords

Aico, with HomeLINK, is now the fastest growing and most impactful connected home company in the UK. We are achieving this by scaling a technology that is helping to make people healthier and safer whilst reducing their carbon footprint and saving them money. We are at the forefront of the 'useful' connected home technology revolution.

#### Trusted nationwide by social housing providers:



For more information on standards, regulations and legislation, please visit our website.



# **Funding and Support**

#### The Social Housing Decarbonisation Fund and The Optimised RetroFit Programme

There are currently two Government initiatives that are designed to support registered social landlords with their approach to decarbonising their housing portfolio. In England, social housing providers can look to the Social Housing Decarbonisation Fund, and in Wales, the Optimised RetroFit Programme. Digitalisation features in the latest phases of both initiatives, with a requirement for data collection from affected properties to ensure that the retrofit design intent has been fulfilled.

The HomeLINK Connected Home Solution helps social landlords to target in-need properties and monitor the performance of installed measures to ensure investments deliver their intended outcomes.



#### **Awards and Recognition**

The Gateway is Aico's first IoT device and an innovation in home life safety. Since its release in 2020, the Gateway has won multiple awards for its contribution to creating healthier, safer and more sustainable homes for residents across the UK.

- Northern Housing Awards 2024 Best Transformation Programme
- Housing Digital Innovation Awards 2023
   Best Asset Management Innovation
- Building Communities Awards 2023 Innovative Product of the Year
- Housebuilder Product Awards 2022 –
  Best Health and Safety Product

۲

- ASCP Safety & Compliance Awards 2022

   Product of the Year Improvement to Wellbeing & Environment
- UK Business Awards 2022 Best Innovative Product
- Computing Digital Technology Leaders
   Awards 2022 Big Data IoT Project

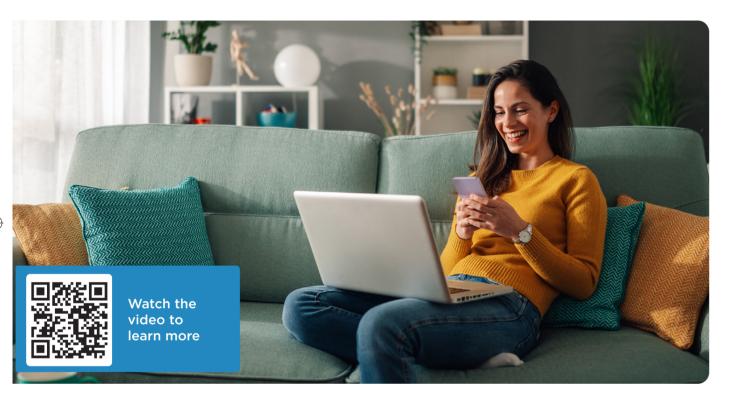
# **Customer Testimonials**

#### "

We can see a huge amount of value in the environmental sensors. From improving resident health and wellbeing to ensuring we are compliant with things that are very difficult and expensive to measure such as damp & mould locations and causes. It is clear from the Ombudsman's report that Landlords are expected to take a proactive approach to solve these problems, non-compliance will no longer be tolerated, and disrepair legal claims are likely to increase. The sector needs to get on its front foot and there aren't many options. "



Senior Compliance Manager, Barnet Homes



#### "

The HomeLINK data provides us with useful insights into individual property performance for a wide range of different teams across the company. These insights allow Wolverhampton Homes to monitor and proactively respond to any priority maintenane or high risk issues.

The HomeLINK Resident App also allows our customers to monitor their home and improve their living environment, and, where smart meters are linked, monitor and reduce their energy consumption. Aico have provided excellence levels of system support throughout the delivery of the project, from our onsite installation teams through to back office colleagues.



# **Find your Local Relationship Manager**

Aico have Relationship Managers situated throughout the UK that can help in a consultative role to advise on alarm and environmental sensor selection, siting, installation and maintenance.

To find your nearest Relationship Manager, please visit our website.

#### www.aico.co.uk/rsm

#### Need to contact us?

Aico Maesbury Road Oswestry Shropshire **SY10 8NR** 

Tel: 01691 664100

General

Sales

#### Keep updated with the latest Aico news

lan Garner

Director - Property Services, Wolverhampton Homes







**Technical** technical@aico.co.uk

enquiries@aico.co.uk

sales@aico.co.uk

Marketing marketing@aico.co.uk



oxtime Aico Illustrations, photographs, part numbers, layout and style are considered property.

Any reproduction, in whole or in part, is strictly prohibited without written permission. Our policy is one of continuous improvement; we reserve the right to amend designs and specifications without prior notice. Every care has been taken to ensure that the contents of this document are correct at the time of printing and we shall be under no liability whatsoever for any errors or omissions.

۲

#### February 2025



۲

T: 01691 664100 E: enquiries@aico.co.uk www.aico.co.uk

Connect with Aico on social media



