

## Damp and Air Quality Monitoring



As a social housing provider, you need to ensure that your housing stock is in good condition, complies to health and safety and Decent Homes Standards and will not pose a health risk to tenants.

### Damp and mould

There are three main types of damp that can be found in homes – condensation, penetrating damp and rising damp. Condensation appears when excess moisture in the air meets a cold surface like a wall or a window. Penetrating damp occurs when water comes through external walls or through the roof or from internal leaks and plumbing problems and rising damp is when there is moisture beneath a building and soaks up into the bricks and concrete.

All types of damp can result in potentially harmful mould growth that can be made worse by poor heating, ventilation or insulation.

### Health risks

The NHS says people are more likely to suffer from respiratory problems, infections, allergies or asthma if they have damp and mould issues in their homes<sup>1</sup>. Those at greater risk are babies and children, the elderly, those with long term illnesses, co-morbidities, weakened immune systems and respiratory problems.

With approximately 50% of households in the social sector having at least one member with a long-term illness or disability<sup>2</sup>, it is key for local authorities and housing associations to be able to minimise the health risks and help improve the health and well-being of your tenants.

#### AT A GLANCE

- Real time damp & air quality monitoring
- Quickly and easily assess property condition
- Reduce the risk of disrepair claims & legal costs
- Reduce maintenance costs
- Minimise health risks to tenants
- Track and report health and safety compliance.
- In-house screens to help tenants self-manage

### Disrepair Claims

Damp related issues also account for many disrepairs claims against social housing providers– leading to expensive compensation payments and legal costs. But it can be difficult to keep track of the condition of properties or identify whether damp conditions are structural or the result of tenant lifestyle if you can only rely on tenants to give you regular access to their homes or log issues as they arise.



Giosprite

## Giosprite Solution

### Sensors

Our solution includes a combination of high-quality battery-operated damp and air quality sensors, control panel and tenant notification screens to enable you to remotely monitor homes, better understand the condition of your housing stock and take action fast – without having to gain access to tenanted properties. Our sensors are long life battery powered, low maintenance, visibly discreet within a property and very simple to install.

### Network

There's no need to rely on mains power, a tenant's internet access or expensive SIM cards in order to transmit the collected data. Our secure, low power wide area network is a cost-effective, wireless telecommunication that's perfect for transferring data from the sensors to the control panel and across to our e-paper tenant screens.

With lower power requirements, longer ranges and lower costs than traditional mobile networks, Giosprite's LPWAN (LoRa) offers much lower upfront capital expenditure and lower operating costs.

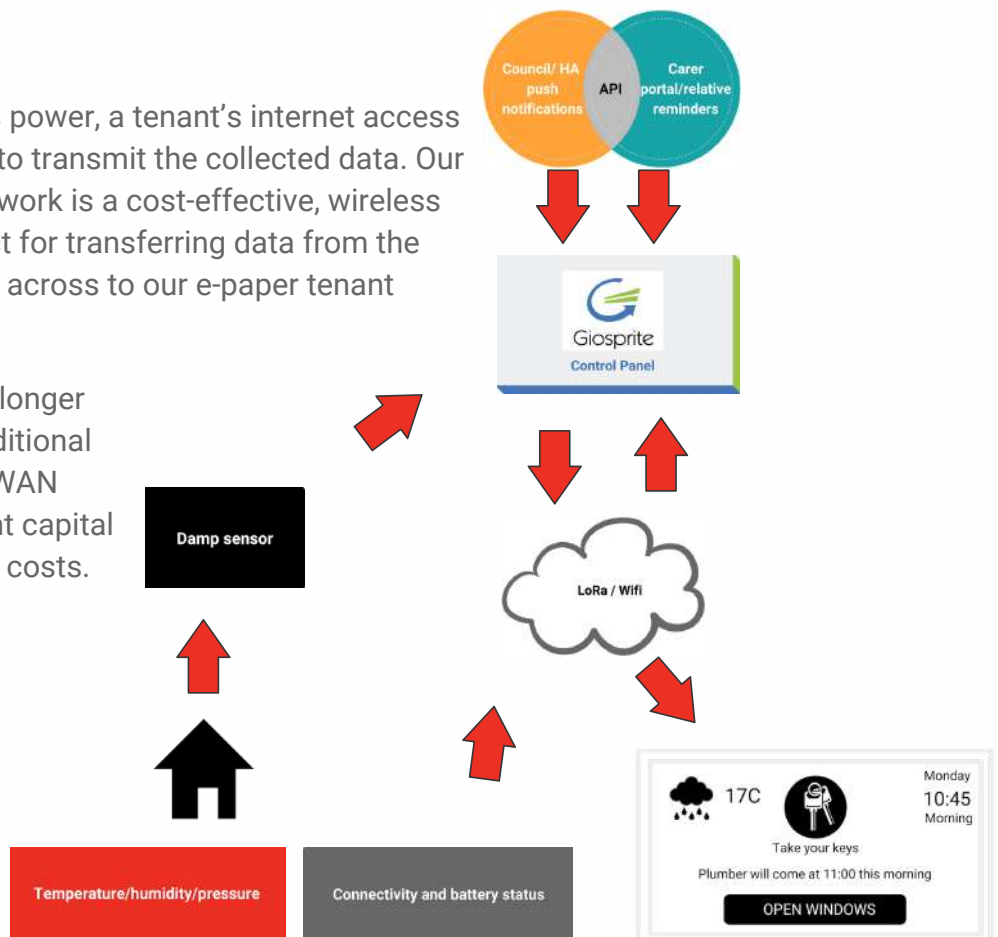
### Control Panel

Our online control panel will enable you to view the collected data and be able to identify any environmental issues quickly and easily. From here you can also control which tenant notification screens get updated with the messages you want to send.

### Tenant notification screens

If the data collected suggests a lifestyle related issue e.g. the humidity in the home is too high or room temperature is too low, you can automatically send your tenants alerts to help them self-manage the issues within their homes: e.g. 'open windows' or 'put the heating on' using our battery-operated, low power, e-paper screens mounted inside homes. During winter, for example, if consistently low temperatures are recorded within a home but the tenant appears to be ignoring the messages about the impact on their health, property or recommended temperature settings, it could be an early indicator of fuel poverty. Automatic checks within the control panel can be set up so that if, after recommendations and reminder messages are sent, a no change in the readings could instigate a home visit to help. The screens can also be used to send housing repair appointment reminders or, you could even have permission-based access for social care providers/circle of care stakeholders to send useful reminders to their service users or relatives.

e- Paper or e-Ink as it's also known is the same technology that exists in the Amazon Kindle. One of the most significant benefits of this screen technology is that whilst the screen remains static it requires no power whatsoever. Only when the screen is being updated does it require battery power and network connectivity.





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## **Improve health and well-being**

The environmental data you receive can help you identify potential problems with heating system inefficiencies, poor ventilation or where tenants may not be able to afford to put the heating on. It can help you quickly and easily understand where you can provide help or where self-management action needs to be taken to prevent health issues developing. The insight gained can enable you take preventative action to ensure that issues are identified and resolved fast, before they get the chance to make a significant impact on tenants' health.

For those living alone, maybe with early stage dementia, the tenant notification screens can help provide a valuable link between the service user, social care providers and friends and relatives.

## **Reduce Maintenance Costs**

The real-time alerts and trend analysis data enables you to assess the condition of your properties in real time and over time. You can use this information to undertake immediate and pre-emptive works or schedule timely planned maintenance and repairs and resolve issues before they become more expensive problems.

## **Facilitate compliance**

With regular, accurate, real-time data collected from our damp or air quality sensors, you will be able to meet the outcomes set out in the Home Standard by ensuring tenants homes meet the Decent Homes Standard. We provide you with the robust evidence you need for regulators, to inform HHSRS assessments, and to be able to demonstrate an appropriate balance of planned and responsive repairs in-line with the Home Standard.

<sup>1</sup> NHS website <https://www.nhs.uk/common-health-questions/lifestyle/can-damp-and-mould-affect-my-health/>

<sup>2</sup> The English Housing Survey 2016-17, Social Rented Sector