

# HOUSING TECHNOLOGY™

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Housing Technology & Aareon –  
Seven Golden Threads  
2022

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## Proptechs & IT start-ups in housing

Housing Technology's  
round-up of companies  
to watch for 2022

### Housing management

Digital twins, asset management, IT trends, Dynamics 365 and digital transformation

### Finance management

IT budgeting, governance & compliance and rent arrears

### Customer management

AI, text analytics, real-time tracking, chatbots, telecare and IoT ethics

### Mobile working

BPA, personalisation, omni-channels, remote working, workflow and drone technology

### Infrastructure

IoT predictions, GIS & mapping, systems integration and microservices

### Procurement fallacies

IT and business procurements should be fairly empirical exercises, free as far as possible from subjective and personal judgements. However, given our innate human fallibilities, that's rarely the case. Given the importance of IT procurement to housing providers' operations, we thought it would be enlightening to consider some of the most common procurement fallacies.

- **Sunk costs** – These are costs that you've already paid and can't get back, with the fallacy resulting in IT or business projects being continued only because of the previously-spent (sunk) costs, in spite of the intended benefits no longer likely to be achieved. To use an everyday example, imagine you've bought (non-refundable) tickets to a film but after watching it for ten minutes you decide that you really aren't enjoying the film; do you stay until the very end because you've paid for the tickets, or leave and use the remaining time to do something more enjoyable?
- **Confirmation bias** – We each have a tendency to focus on things that reinforce our existing beliefs and ignore evidence or arguments that undermine those beliefs. In the context of procurement, we might believe, for example, that 'well-known IT supplier' simply must be better than one we've heard less about; we would then frame our post-hoc procurement arguments accordingly, in spite of what might be in the respective suppliers' tender responses.
- **False dilemma** – This is the misleading idea that the procurement will be sub-optimal, regardless of the decision-making process. For example, when selecting a potential IT supplier, you might think or be told, "If we go with the lowest price bid, the service will probably be terrible; and if we decide to pick the best service offer, we will pay through the nose." The goal of each procurement exercise should be to find the best overall value for the proposed price (i.e. the optimal TCO); the value is a fair price that we are willing to pay for the best quality product or service.
- **Hasty generalisation** – This fallacy is based on applying a small, unrepresentative sample or opinion to a much larger situation. For instance, when deciding which companies to include in the request for tender, someone might say, "We've tried to get quotes from this company once before, but their prices were too high, and the quality is questionable; they should therefore be excluded." This is flawed reasoning (and unethical); no suppliers should be excluded from getting your business just because they didn't win previous bids.

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# Forthcoming events

## Housing Technology 2022

Annual conference & executive forum | In-person & digital broadcast

**02-03 March 2022**  
**The Oxford Belfry**

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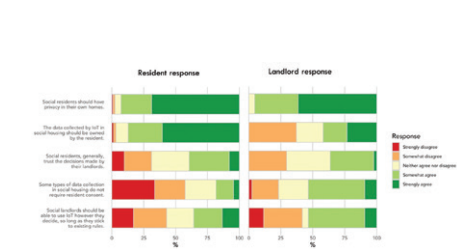
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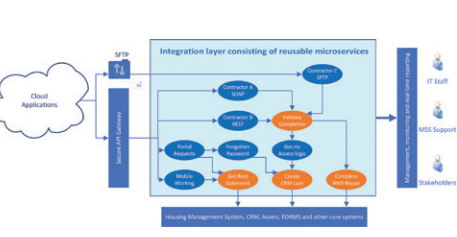
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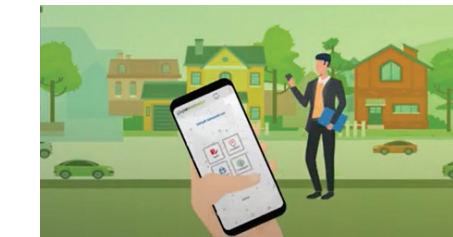
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## 45 Proptechs & IT start-ups in housing

Housing Technology's round-up of companies to watch for 2022

## TECHNOLOGY SHOWCASE

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# Social Housing Solutions



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# Could digital twins revolutionise housing?



Helen Rogers, Housing Product Director, Civica

*Every sector knows the importance of digital transformation. From aerospace to construction, automated processes and digitally-enabled collaboration tools have gone from being a 'nice to have' to a 'must have'. For the housing sector, digital twins (virtual representations of physical spaces) have been a key part of those digital transformations.*



At a recent virtual roundtable hosted by Civica, housing experts explored the benefits and challenges around digital twins. While it was widely agreed that getting started is a major challenge, it was also clear that digital twins have huge potential to deliver savings, make homes safer and greener, and improve the resident experience.

## Setting the standard

Housing providers have endless possible data points that need to feed into a digital twin, but often this data is held in legacy systems with no defined standards. Unless data is collected and managed effectively, then it is of little practical use.

Leading manufacturing sectors such as aerospace and defence provide clear examples of the benefits of having consistent data standards. As well as the overwhelming amount of data to consolidate, organisations also need to find financial breathing space to implement any strategic project. After all, most budgets are already stretched simply trying to remain compliant with various regulations. These challenges are similar to those faced by any

organisation undergoing digital transformation. The focus for many in the housing sector should be on finding ways to get started that will convince boards and other stakeholders of digital twins' immense benefits.

## Digital twins – ensuring better, safer, greener homes

Our roundtable experts offered some tangible examples for how digital twins could help housing providers. On a practical level, one participant told a story of how sharing data with a resident made them turn their heating down; they could easily see the effect a few degrees on the thermostat would have on their heating bills, carbon footprint and on the comfort of other residents in the building. 'Nudge' theory has the potential to drive strong behavioural changes in residents thanks to the information available through digital twins.

At a more strategic level, digital twins will help organisations meet and exceed new legislative standards and rules. Compliance can be expensive but an accurate digital twin will give detailed insights regarding how efforts should be focused.

Ultimately, digital twins have the potential to make housing providers more effective at delivering better outcomes for their tenants. They could increase safety, help people reduce their utility bills, and improve transparency by showing tenants exactly what's happening in their building in real time.

## Beginning the journey

How should housing providers begin their journey towards digital twins? One roundtable participant explained how they had started by gathering data with a 3D camera. While not as accurate as a laser survey, it's much cheaper and a good way of starting to collect data. Other participants are starting geographically, by focusing their

efforts in one area rather than sending lots of people to numerous locations all at once. Collecting data during a routine visit, such as a boiler service, could make this even more cost-effective.

The conversation explored just how much human input is needed to get the data for a digital twin. Some data can be gathered quickly and cheaply – to complete a visual inspection for electricians, staff only need very basic training, whereas other data often requires specialist knowledge (e.g. a quantity surveyor has to complete years of training).

A clear message from our roundtable was that some aspects of data collection can't, for the moment, be left to machines alone. For example, when safety teams walk around a site, they might notice fly tipping or other dangers that current technologies wouldn't pick up. Building the datasets for a digital twin will take many staff-hours, so starting small is the best way to get going, adding more data streams when budgets and time allow.

### Tools and techniques

While other sectors such as healthcare or aerospace are leading the way on having clear standards that participating organisations must adhere to, the housing sector is nowhere near that level of standardisation. While some attempts have been made (e.g. HACT), legislation has a vital role in fostering the creation of a consistent set of standards in our sector.

The range of systems which organisations use adds further complication. As well as managing housing, many are involved in care, some have commercial properties and some even manage properties for other organisations. Each area of the business typically uses its own software to manage assets and information.

Many housing providers seem to favour a back-to-basics approach for getting data in order, by partnering with a strong IT supplier and standardising and consolidating information, rather than adding new layers of complexity.

Fortunately, the tools are already out there; housing providers just need to evaluate the best solution for their needs and be open to new standards as they come along.

### Digital twins – not if, but when

- While organisations might think digital transformation is nice-to-have but not essential, other sectors have proven otherwise; it's the 'unknown unknowns' that provide real value.
- Start from the ground up. It's important to begin with your structured data and get it validated by skilled people; you will then have a solid foundation to build on.
- Look for immediate financial impact. Find a use case for digital twins that will bring a quick win and then use that to give yourself room to invest in other areas.
- Keep a clear purpose in mind and focus on the outcomes. Bring everyone along with you on the journey and get buy-in from across the organisation and residents.

Digital twins have transformative potential for social housing, from helping tenants save money, to reducing

their impact on the environment and enjoying better living conditions, as well as a plethora of operational benefits for housing providers themselves. The question is not whether to start on the journey, but how and when.

The same challenges housing organisations are facing now have been faced and overcome by organisations in other sectors. It's time for the social housing sector to draw on those experiences, come together to develop standards and work towards a digital future.

*Helen Rogers is the product director for housing at Civica.*



## Epping Forest opts for Civica's Cx Housing

*Epping Forest District Council has signed a new ten-year deal with Civica to implement its Cx Housing Management and Asset Management platform.*

The Civica software will combine all of the council's tenant, housing and asset information into a single database. A customer portal will enable residents to self-serve and have always-on access to their information such as current repairs, waiting times or tenancy details.

The Cx platform is expected to give the council better control over its costs and housing assets alongside stronger regulatory compliance. All of the council's services will be available in the cloud, with new process management and workflow tools to make it easier for the council's staff to generate reporting dashboards and find the information they need quickly from any device.

Deborah Fenton, director of housing and property, Epping Forest District Council, said, "The main result of Civica's Cx Housing will be improved services for our residents. Accessing systems in the cloud will make life much easier for our housing officers so they can be out in their communities rather than sitting in the office.

"Increased automation, smarter data analysis and better workflows will help our employees to spend more time adding value for residents."

**CIVICA**

Catching near misses

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○ Environmental

○ Carbon Monoxide

○ Fire



# Housing's top IT trends for 2022

Trevor Hampton, Director of Housing Solutions, NEC Software Solutions UK

*The pandemic has accelerated housing providers' appetite for new technologies that can gather information more effectively to enable better decision-making, so here are five technology trends that we believe are likely to have the greatest impact in housing this year.*

## AI and hyper automation

Artificial intelligence (AI) has proven itself to be a useful technology to predict which tenants will fall into arrears with rent payments, enabling housing providers to step in and provide more support. In 2022, we can expect to see AI expand into other areas such as ASB and repairs.

Let's take repairs as an example. A housing provider could receive an alert to advise, when addressing one repair, that they should also look at other associated issues in the property. This would avoid repeated visits based on failure, fault and analysis predictions, or perhaps if the temperature in a property falls below a certain threshold then they should call the tenant to check that all is well. With this type of insight, it will be much easier to keep on top of maintenance and repairs and as a result, ensure the wellbeing of tenants and assets.

## Decision intelligence

Bringing asset, tenancy and health data together is vital to spotting patterns or anomalies and I think we will begin to see more innovative ways to collect data. For example, the use of smart kettles or televisions, which could offer non-intrusive ways to provide more tailored care for vulnerable tenants alongside 'wearable tech' for monitoring wellbeing and enriched with an individual's health parameters for alerts. Tenants can personalise the alerts for themselves, family and carers and subscribe to data streams, opting in and out as they feel comfortable to share.

Data captured in this way could make it simple to create a profile of habits, such as the kettle usually being turned on four times a day or the television every morning and evening. Any changes in usage could provide an early warning that something might be wrong.

Smart glasses could move from being a lifestyle accessory to something that could be adapted for housing to collect useful data about a property. For example, housing officers could carry out fast and thorough tenancy inspections by using the glasses to take photos, videos and recording voice notes, all of which could be updated to their back-office systems. It's not too much of a stretch to imagine that the glasses could eventually have the

capability to highlight things the human eye might miss, such as early signs of damp or cracks in a wall.

## Virtual assistance

To reduce unnecessary call-outs, we will see more ways to diagnose problems remotely using photos or videos, which could be shared by a tenant via a smart device installed in their home.

By linking to an app, tenants could also have the ability to let people in and out of the property remotely, perhaps if they are due to have a repair visit while they're out of the home, helping to reduce the number of 'no access' visits.

## Sustainability

As housing providers make changes to meet net-zero targets, we will see a rise in IoT devices being fitted. They will provide a great way to measure whether any implemented changes are making a difference, such as whether the installation of temperature sensors is making homes more energy efficient. IoT-enabled technology could help housing organisations understand whether the measures they put in place will have a positive effect on the environment.

## Privacy-enhancing computation (PEC)

Three decades after Tim Berners-Lee gave us the world wide web, he's now made it his priority to help put people in control of their personal data. He believes technology will be the answer to give individuals more control.

Privacy-enhancing computation (PEC) can help to keep personal data confidential and prevent data breaches. But users will also want to take back control of their own data, for example via secure personal online datastores (PODs) to store personal information such as their address, credit history, health records and passport details. They can grant and withdraw access to certain elements of this data to third parties as they see fit.

This could be a positive step for housing because they will be confident that the information provided by users is correct and up-to-date. It also makes compliance around data protection and privacy a more straightforward process because the data subject themselves (i.e. the tenant) is in charge.



As we start 2022, the future may feel a little uncertain but one thing we can be sure of is housing will be looking to the new technologies that support effective conversations with tenants, provide a clear picture of risk and offer the intelligence to know when to step in to avert a crisis.

*Trevor Hampton is the director of housing solutions at NEC Software Solutions UK.*

**NEC**

## Go hybrid... Integrate your HMS with Dynamics 365



Jordan Wheat, New Business Consultant, Crimson

*Within social housing, information management systems play a huge part in the overall satisfaction of both employees and tenants. From property repairs and maintenance to rent accounts, the systems that manage this data are absolutely fundamental, particularly housing management systems.*

However, the main housing management system (HMS) chosen across the company doesn't have to manage every single part of the housing provider's operations, and more often than not, it doesn't. And while having multiple platforms or systems isn't out of the ordinary in our sector, having an integrated, joined-up view of tenants across all systems definitely is.

### **"We already have an HMS..."**

Throughout 2021, Crimson held bi-monthly 'housing breakfast' webinars to cover key problems and solutions with some of the UK's top social housing providers. Across these webinars, we often discussed the customer engagement benefits of Microsoft Dynamics 365, at which point we were often told, "but we already have a housing management system".

What makes Dynamics 365 special is that it's customer-centric and intelligent with prevalent examples of modern technologies such as AI that aren't usually enabled in most housing providers' existing systems. Even better than this, it has great API availability so it can hook up/into a number of different aspects of your HMS such as ASB, complaints or neighbourhoods. This means housing providers can enjoy small, medium or large portions of Microsoft's CRM capabilities, regardless of your incumbent HMS situation.

### **Fast-track integration**

Crimson's Enterprise Integration Platform for housing

providers fast-tracks the integration of business and data systems within the cloud with its prebuilt connectors and data-mapping experience across contacts, rents, cases and much more. Not only is this an easy process to manage, but it also standardises your future integrations. A centralised integration portal also helps to identify and solve problems and promotes scalability.

The ability to integrate with a variety of HMS platforms (such as Capita, Civica, MIS, MRI [Orchard] and NEC [Northgate]) gives housing providers a joined-up view of their tenants. A hybrid approach offers the best of both worlds for managers, while keeping their options open for future connectivity opportunities.

Furthermore, Microsoft's in-built integration capabilities (such as Azure Service Bus, Logic Apps, Data Factory and API Wrappers) provide an enterprise-class integration layer to your existing systems, which makes adding or removing systems in the future even easier.

### **Future evolution**

Modern, cloud-based integration from Microsoft can unlock opportunities for business and customer engagement solutions with a hybrid model, allowing housing providers to adapt over time. By complementing existing solutions, the change-over period is faster and easier, with a lower level of risk.

**Our next housing breakfast webinar answers one of our most common questions; learn more about integrating Dynamics 365 with your HMS at the event via [crimson.co.uk/it-solutions/industries/housing](https://crimson.co.uk/it-solutions/industries/housing).**

*Jordan Wheat is a new business consultant at Crimson.*

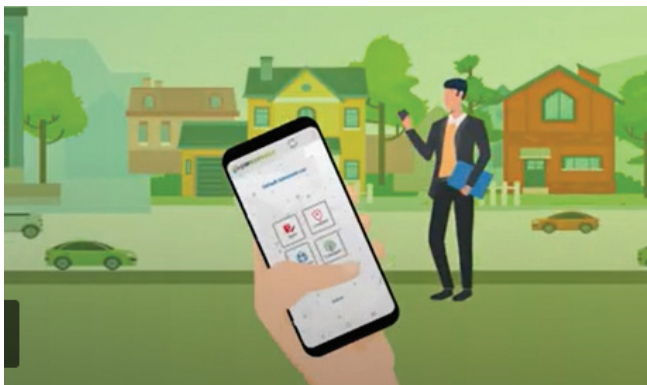
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## Digital transformation – The story of Housing Insight

Nas Hayat, CEO, Housing Insight

*The housing sector has gone through big changes over the past few years, with new terminologies such as customer first, digital inclusion, mobile working and cloud services coming to the fore and now being discussed at board level.*



In line with those developments, many housing providers have moved away from their 'traditional' IT providers, looking for new functionalities in line with emerging technology developments. For their part, the IT providers countered this by moving their legacy databases into the cloud and offering web-based interfaces to surface the data, although their core functionality remained the same.

Looking at how Housing Insight's offerings have grown over the years, they have mirrored the digital changes in our sector. The decisions made by our company and the thought processes that have gone into our products have all been based on this changing environment.

### Doing things differently

Although Housing Insight's team had a long history of housing software development, particularly around HMS integration, we realised from the outset that we would need to do things differently. IT was moving on from

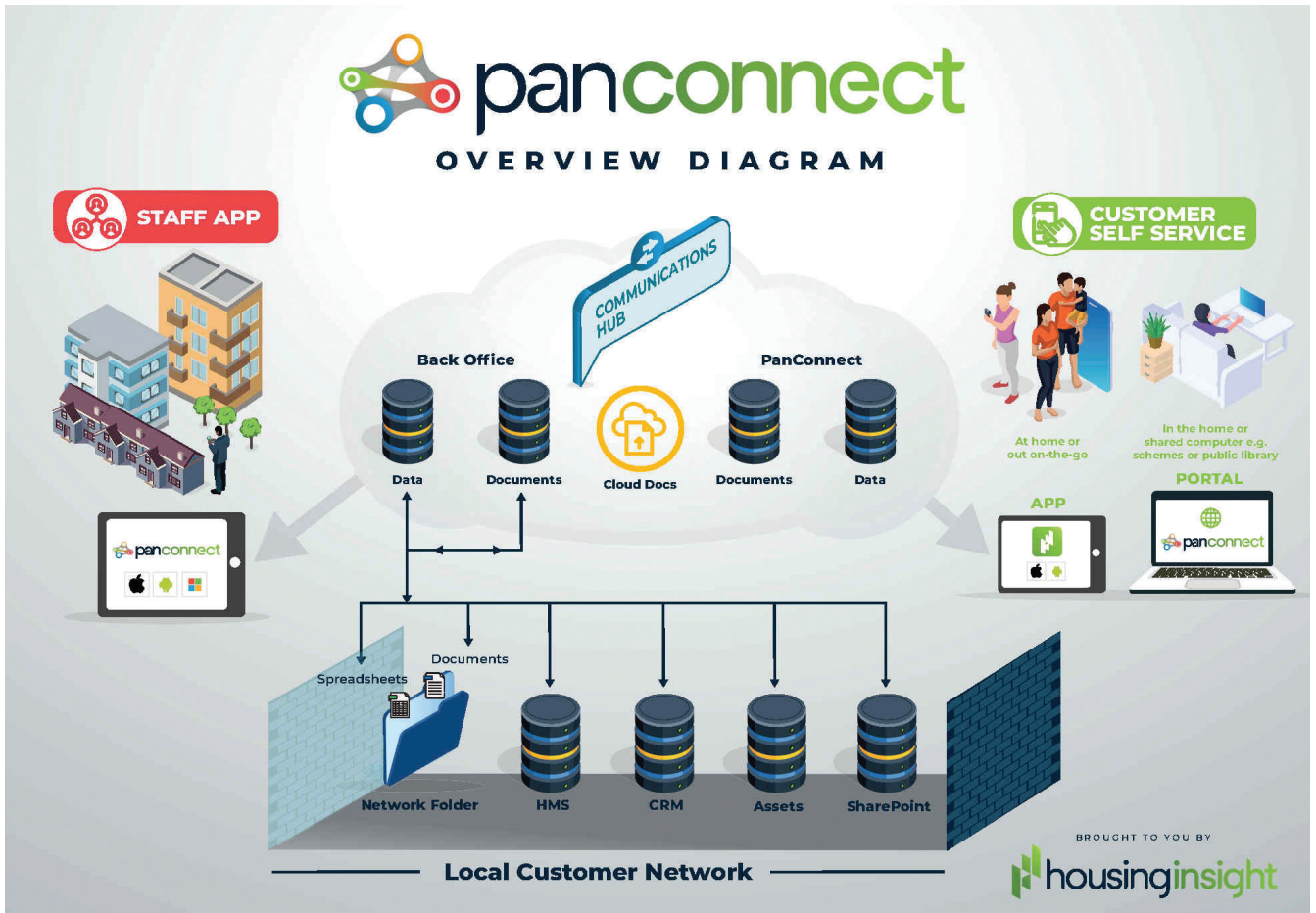
simple on-premise software on a server or desktop PC to being sold as a service in the cloud. As a consequence, we needed to develop integration tools that could connect systems in different locations (both geographically and on-premise or cloud) in a secure and efficient way.

Traditional HMS providers had built up good knowledge over the years regarding core housing functions such as finance but they had struggled to offer extensive solutions that added value to those core functions. We didn't want to re-invent the wheel; instead, we focused on adding value to housing providers' existing core systems.

### The move to mobile

Housing providers were trying to encourage their staff to become more mobile and get them out of the office in order to meet their tenants more frequently; the term 'customer first' was now being used widely across our sector. Mobile phones, tablets and laptops with SIM cards were being given to housing staff and they wanted to use these portable devices to do their work, hence the concept of a mobile working platform for staff was created.

To address this, most of the housing software suppliers went down the route of creating web-based software that people could access in the field. However, the problem with these solutions was that you needed a mobile network signal to access them. This meant that when a housing officer was sitting with a tenant and needed to look something up or update back-office systems, if there was no mobile signal (such as in basement flats or the Welsh valleys), they couldn't do their work.



### Adding the integration layer

A system was therefore needed that would let housing staff continue with their work irrespective of network coverage. A system that could be used when staff visited tenants that would give them access to all the data sitting in their various back-office systems (even when

no signal was available) as well as be used in the office, at home or wherever there was a decent internet connection. This type of system would allow our housing customers to still opt for best-of-breed business applications (from traditional housing IT suppliers, for example) and then place an integration layer above these systems, as well as let them swap out any of their back-office systems with minimal impact on front-line staff.

The best way to way to achieve this was via a platform-neutral app (i.e. Android, iOS and Windows) that could extract data from multiple systems and then hold that data securely on the device so it could still offer full functionality without an internet signal or mobile coverage and send back any changes once a signal was detected.

And with a forms designer allowing housing providers to create their own digital forms within the app to collect additional bespoke data, a true mobile working system started to evolve.

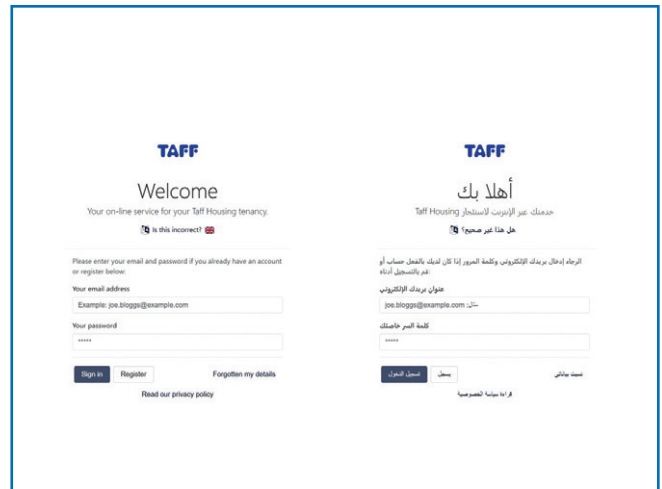
We knew that most housing providers worked in similar ways; we could therefore standardise some of the more complex forms so that they were broadly applicable to all housing customers, along with standard connectors to the most common back-office housing systems in order to collect and write-back data.

With their staff out in the field, housing providers wanted standardised processes for a range of common tasks and jobs, based on information being updated in their core systems. We combined these standardised processes with workflows to ensure that the correct data was collected and updated at each stage of the process. In addition, a daily 'in tray' that housing staff could access and work through based on their GPS location became essential.

### Doing it yourself

As digital technology was moving forward across all sectors, consumers around the world were finding that institutions such as banks were offering self-service websites, giving them access to their own data and key documents. As self-service apps and portals gained in popularity and ease of use, housing providers' tenants wanted similar services from their landlords.

Some housing providers built their own solution for their tenants on top of their websites, but this took time and tied them into maintaining the solutions themselves.



They also didn't benefit from the best-of-breed approach adopted by other housing providers.

Housing Insight's first customers for this type of solution were based in Wales and needed their tenant-facing offerings to be able to support multiple languages from the outset. We developed a product that could handle all languages, based on the person signing into the system and not the system into which they were signing. Our solution came to be known as a customer self-service portal because the solution offered tenants extensive functionality without the need for any staff intervention.

### Apps & omnichannel access

In this new digital age, housing providers found that many of their customers had smartphones, and therefore wanted downloadable housing apps. They also wanted a choice of channel (app, website, phone, etc), with a choice of languages, all with a common user experience and the same functionality across the channels.

Most IT suppliers tend to look at consumer access as a by-product and haven't really delivered a good solution with extensive functionality. Most offer a simple website with very basic functionality and no downloadable app, or if they do have an app it behaves differently to the website.

In contrast, Housing Insight's app can be downloaded direct from the app stores by a housing provider's tenants, pre-branded with the housing provider's colours and logos, ensuring that what the tenant sees on the app is the same as the website (including any language options).

### Seamless information flows

With our two core products, Staff App and Self-Service App & Portal, we were able to connect the workflows to produce a single combined workflow that could start within either product (i.e. when a tenant does something on their side of the system, it triggers alerts on the staff-side automatically, and vice versa). In fact, all of the products in our PanConnect suite interact with each other

as a single, seamless entity from the perspective of the end-users (staff or tenants). This aspect of the system has given us the ability to offer greater functionality and bring staff and tenants even closer together.

As ever, Housing Insight wants to offer services that enhance housing providers' traditional back-office systems rather than replace them.

We've worked closely with our customers to develop standard functionalities that add value to their core business functions (such as applications, voids, lettings, arrears, estates and neighbourhoods, repairs, care and support, end of tenancy and third-party management) and we continue to strengthen our products based on emerging technologies and our customers' evolving requirements.

*Nas Hayat is the CEO of Housing Insight.*



# Paving the way for safer homes with Cx Asset Management

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[civica.com/asset-management](https://civica.com/asset-management)

“We’re migrating from Keystone to Civica’s new Cx Asset Management software to help us deliver the building safety requirements and enable us to prove our assets are safe.”

Lee Sandham,  
Building Data Manager,  
Salix Homes



# MHS invests in RentSense

*MHS Homes has invested in Mobyssoft's RentSense to help it identify and support tenants struggling with their rent and create capacity for its housing and income officers to offer help.*

Stephanie Goad, operations director, MHS Homes, said, "Owing to the pandemic, we've seen a sharp increase in the number of tenants claiming universal credit, and many of them for the first time. As a result, our arrears have increased and our officers need more time to support those tenants."

"We worked with Mobyssoft to see how RentSense might help us to target the accounts that needed active management, to ensure that our team was being as productive as possible. RentSense's advanced algorithms set it apart from its competitors and the trial showed us that there was a clear business case for moving forward with it."

## Solihull Community Housing live with RentSense

Solihull Community Housing is now using RentSense to help it mitigate rising arrears and achieve upper-quartile performance.

Andy Jones, neighbourhood services manager, Solihull Community Housing, said, "Having spent a lot of time on our housing management system, we still felt that further improvements were needed to improve our arrears performance."

Before buying RentSense, Solihull took part in Mobyssoft's 'rent test'. Mobyssoft audited a sample of SCH's arrears data to identify which cases RentSense would highlight in order to give SCH a quantifiable idea of what the software would deliver once it was fully operational.

Jones said, "The rent test highlighted what we needed our staff to focus on. It also provided a caseload that was manageable and could be completed within a week."

## Mobyssoft adds new RentSense customers

By the end of 2021, Mobyssoft reported that it had gained 25 new customers for its RentSense software during the past year, in part due to the pandemic reducing some tenants' financial stability, in turn causing higher levels of rent arrears.

Leah Montia, head of housing operations, Arches Housing, said, "We were keen to understand other housing providers' opinions of RentSense, and we were told it would be a 'game changer' for how we managed our arrears."



Misba Bemath, assistant director of housing, Newlon Housing, said, "Mobyssoft and its RentSense software have a great reputation in the sector. After speaking with several other users, they told us that RentSense was very effective, and that the service and relationship they had with Mobyssoft was really positive."

Teresa Gowers, service manager, Soha Housing, said, "For our housing and income officers to be effective, they need more time to focus on preventative work and tenancy support – this was a key reason for us investing in RentSense."

## Mobyssoft's Esendex partnership

Mobyssoft has partnered with Esendex, an omnichannel software provider specialising in social housing and local government.

The partnership is focused on integrating industry-standard rent payment platforms so that housing providers can automate many of their payment processes and identify the most effective channels for communicating with their tenants.

Paul Evans, commercial director, Mobyssoft, said, "Esendex's ability to select and fulfil vital communications across multiple channels, derived from RentSense's arrears caseload will mean interventions will be prompt and timely, so that housing providers can focus on arrears conversations and support, not the fulfilment."



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# The art and science of IT budgeting

Gamal Haddou, Finance & IT Director, Cassiltoun Housing



*As we move into 2022, you could be forgiven for confusing a plausibly-named Omicron operating system with Android or Apple’s Monterey. However, we will ignore these and instead look at the financial aspects of running your IT infrastructure and leave well alone the chaos caused by the Omicron and Delta variants.*

With the Christmas break over, budget preparations will be beginning for many managers and finance teams, against a background of inflation above five per cent, rising costs of housing materials, sourcing/supply-chain problems and widespread remote working. Alongside these pressures are consequent expectations for housing providers to reduce their spending on other business areas, of which IT will be one of the main contenders.

## Art vs. science

Budgeting should be more of a science than an art. The best IT budgets are aligned to your corporate or digital strategy, which itself won’t actually differ greatly from one housing provider to the next. After all, we all want flexibility, hybrid working, digitised services and online/self-service options for tenants. Underpinning that is the need to ensure our systems are robust, provide accurate reporting, integrate with other business application specialisms and that our cybersecurity is as strong as it can be.

The science comes from having a measure of risk, quality of the outputs, the efficiency of using software and hardware, and potential downtime from failures or planned updates. In short, the science is about following a moving target of maximising your ratio of outputs to inputs.

The artistic side of IT budgeting should be about deployment, user interfaces and making systems intuitive, and not about setting how much the organisation

proposes to spend nor its objectives. There are some organisations who prepare detailed proposals with departmental managers for their finance teams to constructively challenge and scrutinise, only then for their trustees or executive team to knock off, say, seven per cent from a £100k budget and then proudly announce that savings of £7k have been made.

## Defined outcomes

A clear scope is essential in producing an aligned and robust budget. Coupled with this is having defined outcomes such as:

- We want 80 per cent of transactions to be online;
- No hardware should be older than seven years nor running Windows 10 v2004;
- The ability to import property component replacement dates and values, plus easily adjust timescales;
- Users’ satisfaction levels for speed and performance to be above 80 per cent, or we might define success as five per cent higher end-user satisfaction than last year;
- Two-factor authentication for all remote devices connecting to our servers.

If you’re working on a complex or broad IT project then the business case evaluation (or budget) might have factored in contingency or padding on each milestone activity; this should be avoided because it doesn’t allow accurate comparisons between the actual results and objective





expectations. Instead a project contingency is better because it's harder to hide inefficiencies or show true obstacles that have arisen during deployment. Equally, finance teams should avoid any corporate pressure or temptation to prepare an artificially low budget in order to get approval, with the hope that prices or specifications will reduce.

### Input-output ratios

One sector-wide problem we face is the shift towards software as a service (SAAS), in that it is priced with far too large a premium. Deploying software into the cloud may help with remote working or bypassing very local disruptions but the input-output ratio is heavily geared in favour of the IT suppliers; for little additional output benefit, the inputs of cost and administrative time significantly rise.

The historic on-premise model for using software usually includes an annual licence fee (typically dependent on the number of users), with updates every 1-2 years. Server hardware is often from HP and over the past 20+ years has been very reliable. If you had no security or performance degradation then the software lifespan could be stretched to 6-7 years, and the replacement cost was often not much more than was originally paid, due to costs falling in real terms. For example, Microsoft Office, for all its day-to-day mainstream programs, was a single cost for the lifetime that you owned the computer, generally between 4-7 years.

Fast forward to the current IT environment and companies are pushed towards monthly rental options, based on factors such as number of users, duration, data volumes and even quantity of transactions.

### Introducing SaaS bundles

Two decades ago telecoms providers moved away from individual billing for each call, text or photo message (remember them?). The introduction of 'bundles' made budgeting far easier and usage exploded. This was followed by the likes of Viber and WhatsApp that effectively meant speech and photo messages were unlimited and had no incremental cost. The SaaS business model is moving us towards how telephony used to be, by making us pay for each area of functionality on a per-usage basis.

This is a great opportunity for IT firms to increase their revenues by touting cloud services as being the solution to everything. Microsoft now charges £9 per user per month for Microsoft 365 (renamed from Office 365), equivalent to £540 over five years. In contrast, Microsoft's on-premise charity pricing was £60 for the 4-7 year lifespan. Sure, we now get some extra functionality such as online storage, OneDrive and emails from any browser, but we could have similar outcomes just from buying cloud storage and using a modern phone.

### The real cost of cloud

I know of one popular cloud-based housing management system costing £29k per year for around 20 users and an on-premise provider's annual licence charge of £18k for nearly 30 users. Admittedly, on-premise software will need occasional time from consultants for upgrades as well as perhaps higher server specifications for backup and storage. However, these are one-off costs and housing providers should look at their specific circumstances and build those into their IT strategies rather than automatically accepting cloud as the way forward. Having said that, IT suppliers are making on-premise software

harder to buy, while promoting extra functionality and add-ons to give the perception of higher value.

If you recall from earlier, one of the key control measures is to have a clear scope and defined outcome of what success looks like. That reminds me of a recent comedy sketch about ordering a Chinese takeaway with the family so disappointed that free prawn crackers weren't included due to the current supply problems. They phoned the restaurant to learn, however, that they could be bought. In this example, the 'free add-on' is a valued and desired product but most of the time we make no use of these and they should therefore have no bearing in our decision-making processes.

**Built-in flexibility**

A good IT strategy will accept that technology underpins almost every business function and should build in flexibility. In one area of Glasgow last October, BT Openreach suffered denial of service problems that lasted about a week. There was no access to any cloud-based software, including from office premises. Had the housing and operational software been on premise then there would have been no disruption to any office-based staff.

Internet or broadband infrastructure therefore becomes the weakest link here, over which housing providers have no control. If a car reverses into the street cabinet for your office or vandals attack it then your connectivity will be gone. An IT strategy should take this into account and

build in resilience rather than just accept the IT industry's sales pitch that the cloud is the solution to offering lower-spec servers, avoiding time to carry out local security or functionality updates and that access can be from anywhere.

Lastly, legislation and compliance is also a critical area nowadays. Larger housing providers will employ a dedicated data protection officer but the requirement to ensure that data is accurate, deleted or corrected (if wrong) means there is an obvious resource needed here and it will be heavily skewed towards IT and your digital records. This shouldn't be forgotten during your annual budget process, although in most companies it will be down to departmental users to ensure these tasks are carried out in line with corporate policies and retention schedules. However, it would be prudent to include a specific budget resource for overtime or agency assistance if this area has been scaled back during the past 18 months.

*Gamal Haddou is the finance and IT director at Cassiltoun Housing, and a trustee for Cathcart & District Housing.*

## Melin Homes strengthens governance with Decision Time



L-R: Julie Thomas (chair, Melin Homes), Jane Mudd (councillor, Newport City Council) & Paula Kennedy (chief executive, Melin Homes)

*Melin Homes has improved its governance by implementing software from Decision Time to manage its meetings, risks and objectives.*

Decision Time makes it easier for housing providers to achieve good governance by running effective meetings, managing risk and monitoring strategic performance. It enables CEOs, directors and leaders to manage all of these requirements in one place.

Tom Broadhead, director of business improvement, Melin Homes said, "Decision Time is an easy-to-use platform that has undoubtedly helped us strengthen

our governance. We take our responsibilities very seriously in providing accommodation and a high standard of service for thousands of tenants. Effective corporate governance is absolutely critical for us to deliver our mission to support those living in social accommodation."

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## Vale of Aylesbury Housing's first-time access with Localz

Vale of Aylesbury Housing Trust is now using Localz' core customer engagement platform to provide real-time updates to tenants on their repair appointments and the ability to track operatives on a map.

Customers receive an SMS notification containing a 15-minute arrival window and a link to a web-based appointments portal. The portal includes an ETA countdown and a live map tracking the operative's arrival. VAHT reported that during the first six months of using Localz, its no-access rate for repairs fell by around 40 per cent.

Andrew Rysdale, assistant director of property, Vale of Aylesbury Housing Trust, said, "We wanted to provide tenants with more leeway so that if they needed to, they could pop to the shops."

Since implementing Localz Rate My Experience, each customer receives an SMS request for feedback as soon as their appointment has been completed. The response rate

for feedback has increased, and real-time negative feedback alerts allow VAHT to identify issues and prioritise service recovery.

Rysdale said, "If you want to improve the customer experience, use Localz. We chose the platform to improve the customer experience and saw additional benefits such as a fall in missed appointments and increased response to feedback."

## Fuzzlab & Optus Homes collaborate on usability & bots

Fuzzlab and Optus Homes, both of which are emerging from the start-up stage of their commercial development, are working together to offer a fully-integrated solution to housing providers, combining Fuzzlab's chatbot experience and Optus Homes' app development and usability expertise.

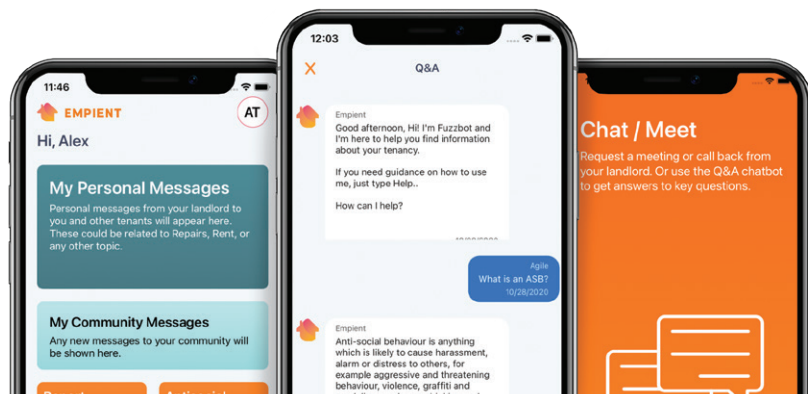
Optus Homes' app allows tenants to manage their rental home account, 'white labelled' for each housing provider. Fuzzlab's smart chatbot has been built to handle a wide range of tenants' questions, analysed from thousands of real-life tenant enquiries.

Gerry Kelly, founder, Optus Homes, said, "We've always wanted to have a chatbot as part of our tenant app. When we discovered what Fuzzlab's virtual customer service agent can do, we realised that integrating their product into ours would better for our customers. Both products are built with Microsoft tools and hosted on

Azure so the integration was pretty easy for us."

Scott Summers, co-founder, Fuzzlab, said, "I was really impressed when I saw a demonstration of Optus Homes'

app. Combining our two products will give tenants the broadest and easiest to use self-service capability of any portal, app or chatbot on the market."



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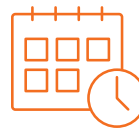
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# AI and text analytics

Mark Spicer, Chief Operating Officer, Feedback Ferret

*Most successful customer experience (CX) programmes use some form of text analytics to surface insights from huge volumes of unstructured data, such as verbatim comments from customers. The comments come from a variety of sources, such as structured periodic survey feedback, event-driven reviews, customer service calls, emails, chats, social media engagements and online reviews.*

Using machines to derive meaning and sentiment from such data isn't easy. However, the benefits of developing and using text analytics, such as finding out what matters most to customers and what you can do about it, is worth exploring.

At the same time, while there has been huge growth in the use of AI to learn and discover what customers are talking about, there is still a place for humans when analysing customer comments.

## **AI, ML or NLP?**

There are many buzzwords being thrown around in the text-analytics arena right now. Sometimes this is referred to as artificial intelligence (AI), machine learning (ML) or natural-language processing (NLP) so it's not surprising that even experienced CX buyers are confused when confronted with such terminology.

We know that clients want to deliver great customer experiences, driven by actionable insights. We know that good business practice is aided by understanding what organisations should be doing more of and what they should be doing less of. What they don't need is to be experts in the underlying technology that delivers those insights.

## **How text analytics has evolved**

In the early days of text-analysis products, the concepts of AI/ML/NLP were still at the theoretical stage, with

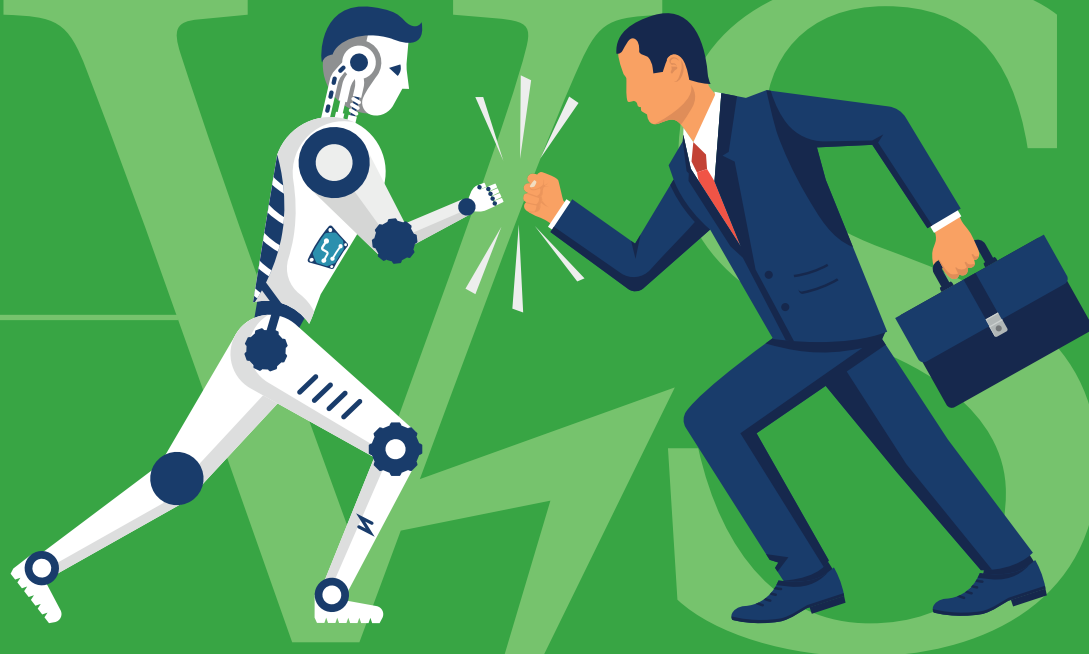
academics devising complex mathematical models which needed huge and expensive supercomputers to develop and execute.

There is a much simpler way – using humans to read customer comments and label them manually, creating a repository of what people say, how they say it and what it means. This form of ML teaches the machines to interpret language, categorising it against a myriad of topics, allowing for misspellings, slang, colloquialisms, idioms and a host of other linguistic nuances and then scoring it for 'sentiment'.

## **Learning models**

Machine learning is now within the reach of every business. However, it's not some sort of miracle that allows computer systems to think for themselves. Without getting too technical, it works by feeding them relevant data that is 'tagged' with useful information.

Using this information, the systems construct learning models which can be used for subsequent analytical tasks, such as text analysis, image recognition and voice recognition. This can be thought of as a training process and these models can be continuously re-trained with new data as it becomes available to enhance the models' capabilities. Training the models is the key to making them capable of understanding customer comments and other unstructured data, and the better the training data, the better the results.



For text analytics companies like Feedback Ferret which use humans, that means training the ML models with an enormous repository of textual data (such as customer comments) that has already been correctly labelled and validated. This wealth of human-labelled words gives a significant advantage when developing ML models because there is a strong base from which to start.

### **Text analytics in practice**

A hybrid model of using people and machines to identify gaps and improvements in coding frameworks is the best scenario. Around 80 per cent of the code base is repeatable and reusable across any business sector owing to the original human-based efforts. In addition, sector-specific coding to handle different terminologies and topics can be quickly added.

The advantage of a hybrid model is that the human element can respond quickly to new phrases and terminologies as language and situations evolve. For example, we saw the first mentions of coronavirus in February 2020 and our team began coding against that, and just a few weeks later we offered our customers a code framework refresh. Today we see more than 90 different ways of referring to just the word coronavirus e.g. corona, covid, covid-19, kovid, etc.

### **Does AI really help?**

Assuming that the ML models are trained thoroughly then the outcomes can be powerful. We've found that with proper training, an AI system can unlock understandings way beyond the original human training given to it. This is perhaps one of the most surprising and rewarding aspects of AI and highlights the technology's potential.

### **A degree of scepticism**

Our advice to anyone considering text analytics would be to have a degree of scepticism around AI, ML and NLP unless the methods and sources of the iterative model training are transparent. AI is often sold as a 'black box' solution which may work in some cases but may be a bit lightweight and inaccurate for handling real-time customer feedback. For better accuracy we need real human ingenuity, interpretation, and creativity to harness the true value of artificial intelligence.

*Mark Spicer is the chief operating officer at Feedback Ferret.*

# Housing Technology & Aareon – Seven Golden Threads 2022

Housing Technology and Aareon UK's special 'Seven Golden Threads 2022' report on the fundamentals of innovation in customer service and the pursuit of excellence is available now from [housing-technology.com/research](https://housing-technology.com/research).



As part of an in-depth engagement process, Housing Technology and Aareon UK ran a series of forums with housing providers during 2021 to understand the emerging priorities for our sector. We wanted to understand what the new 'normal' meant for our sector since the pandemic and how it has affected customer service strategies. We identified 'seven golden threads'; core business transformation areas which have a fundamental impact on the ability of housing providers to optimise their service provision.

The contents of Housing Technology and Aareon's free report include:

- **Data** – Start with data to optimise tenants' end-to-end journey
- **Integration** – Seamless, fast & relevant!
- **Insight** – Driving the right outcomes for tenants
- **Automation** – Accelerating automation to drive service improvement
- **Mobility & Agility** – Mobilising your employees for the 'new normal'
- **Omnichannel** – Delivering the ultimate tenant experience
- **Differentiation** – Providing the right support at the right time



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# The ethics of smart-home IoT devices

Matthew Henderson, CCO, Ethical Intelligence Associates

*Ethics are absolutely essential when it comes to successful technology adoption and data management in housing. In a sector literally as close to home as one can get, decisions made about the use of technology, how data is managed and which principles and purposes should guide those processes will all have an immense impact on the lives of tenants.*



Ethical Intelligence Associates recently partnered with Platform Housing and RHP to bring this sentiment to life by creating and introducing an ethics-based smart-home IoT device procurement framework. This framework captures the rights of tenants, housing providers' responsibilities and the values of sustainable living in action.

### IoT device procurement framework

Classically, ethics is the study of what's right and wrong. However, using ethics as a conceptual tool lets us understand what we truly value and align our actions to achieve those values. Technology exists on a spectrum, from a best-case to worst-case scenario. Using ethics based on our values, we can determine where a technology exists on that spectrum. We also can analyse each decision we could make to help us get closer to the best-case scenario.

The foundation of ethics is logic and the same is true of computing; it's just that one is mathematical and the other is based on critical thinking. Ethics can be a great tool to

help us answer the broader "why?" in any given scenario. For example, knowing why something is being deployed often helps organisations navigate through fluctuating regulations with confidence and presents fewer long-term reputational risks.

### Harmless data?

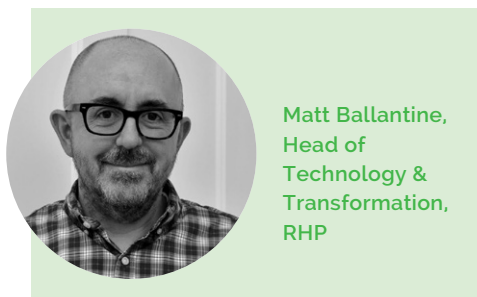
RHP's head of technology and transformation Matt Ballantine contacted us following a Twitter recommendation. In one of his weekly podcasts, he recalls opening a report from his energy provider, which displayed a comprehensive breakdown of his energy usage for that month. It was at that moment when Ballantine came to an alarming realisation; smart meters and other similar devices claiming to collect seemingly-harmless data do in fact reveal a lot more about the behavioural habits of their users than initially considered. He wanted to reinforce this notion at RHP, that data points are people, not just numbers.

Ballantine recognised that with the growing number of smart-home IoT devices, it's paramount that housing providers have a better understanding of the ethics behind their decisions – adopting new technologies must be thought about with care and consideration for each tenant's wellbeing.



### Embedding ethics into IT decisions

Realising the need for a standard to be established in the housing sector, RHP's director of people and business services Lucy Graley, along with Platform Housing's CIO Jon Cocker and head of information governance and



**Matt Ballantine,**  
Head of  
Technology &  
Transformation,  
RHP



**Jon Cocker,**  
CIO, Platform  
Housing

assurance Colin Bailey joined the venture. The mission was simple: to create a user-friendly and interactive procurement framework and provide a wider signal to the housing sector and its IT suppliers about the importance

of embedding ethics into the culture of data management and IT decision-making.

Ethical Intelligence joined the venture to providing expertise from several ethicists, including Olivia Gambelin (founder of Ethical Intelligence), Dr Willie Costello (a philosopher turned data scientist), Annie Valentine (data privacy expert), and Henry Potter (cybersecurity researcher).

### Three questions to answer

After investigating housing providers' procurement processes for smart-home IoT devices, we found three questions that should be answered before introducing a new solution: to adopt or not to adopt; how to adopt; and how to communicate.

A brilliant place to start is to assess whether the desired technology will support a housing provider's values, mission and responsibilities and ensure it's the best possible solution to the problem. It's equally important to look at how housing providers can establish a robust data-management plan by vetting their IT suppliers and employing check-backs to see if a technology has fulfilled its intended purpose. Moreover, how housing providers communicate all of the above to their tenants is crucial for success. If followed comprehensively, the framework guides readers through the ethical thought-processes of adopting new data-driven technologies.

### Critical thinking & ethics

This project created a valuable space for the formation of ideas, insights and critical thinking, thereby enabling RHP and Platform Housing to integrate ethics into their decision-making. By placing the wellbeing of tenants at the core, this framework now ensures confident decision-making for the benefit of all stakeholders.

Housing providers shouldn't fear or shy away from the rise in smart-home technologies hitting the market. Though they are receiving an influx of extremely sensitive data from their tenants, there are practical steps they can take to mitigate the risks, both ethically and systematically. In turn, tenants need to trust their housing providers.

RHP and Platform Housing both recognised their heightened responsibilities regarding smart-home technologies, and what sets them apart at the moment are their respective abilities to transform their intuitions into actions.

*Matthew Henderson is the CCO of Ethical Intelligence Associates.*



# Transforming mobile working

Tina Kennedy, Head of Digital, Aareon

*Even before flexible working became the norm, housing providers were looking at what was needed to empower their remote and mobile workforces. In our post-pandemic world, digitising even faster will improve mobility and agility for workers as well as enabling supportive and better service delivery to tenants.*

True transformation has to put tenants' needs and experience at the heart of digitised change, rather than designing change around technology and old ways of working. Throughout 2021 Aareon held strategy workshops with housing providers to design and co-produce our new portfolio to meet these new and emerging requirements.

Our fully integrated mobile approach is aligned to the seven key themes housing providers raised in those workshops.

scheduling tools such as the ones used in Versaa, a simplified, automated and intuitive experience for your staff results in better-supported tenants and improved experiences.



## Data and integration

Data must work in real time even when mobile, enabling a consistent single source of truth for tasks and activity associated to your tenants and assets. Powered by an extensive integration layer, we have built this into our new Versaa mobile solutions so they work seamlessly across our portfolio and into other external systems. This means that when anything is updated, it's immediately available across your entire application ecosystem rather than field-operatives working from an old download of information.



## Automation

Automation of business processes used in the field is needed so that your staff can focus on helping tenants rather than getting caught up in repetitive, manual tasks. When workflow is automatically triggered by updates and



## Mobility & agility

Housing providers are keen to empower their workforces to undertake vital operational tasks in their communities. When actions can be taken in real time, even while still with the tenant, updates can be provided shortly after or even during a visit. This really drives greater customer satisfaction, avoids escalations and also boosts staff efficiency and staff satisfaction levels.



## Insight

Housing providers want feedback in real time in the form of actionable insights to help their decision-making and prioritisation. Powerful insights are achieved in Versaa by collecting data which is analysed and can be reported on in standard and customer-configured reports. Being able to act on emerging trends and prioritise repairs that impact multiple or vulnerable tenants was raised in many of the strategy workshops we held in 2021.



## Differentiation

The authentication and validation of tenant information is vital for your staff to operate securely and with a personal touch when working in their communities. Being aware of differing tenant needs to focus on the most vulnerable people or time-critical actions can make all the difference to your tenants and their families. At the same time, being able to check such information and receive alerts while mobile helps to keep your people safe as well as helping to maintain the well-being of your tenants.



## Omnichannel

Tenants expect to have access to information 24/7 and to be able to make requests or book appointments at times when it suits them best. Our new portfolio of portal and app solutions is also powered by our Versaa platform to make these easy to deliver, plus the updated information

is available immediately in our mobile working solutions so your field-based staff always have the latest information.



## Versaa-powered mobile transformation

To meet our customers' mobile working requirements, we have created an enhanced, low-code mobile working platform designed specifically for social housing. Versaa empowers your staff to easily build mobile working solutions for any business process, with fully-integrated mobile working to multi-task and provide vital field-based support. Versaa also provides 'anytime and anywhere' app and portal services for tenants, matching the requests housing providers made during our strategy workshops.

Evolving from its highly-regarded predecessor (1st Touch), our Versaa Mobile platform brings mobile working into a new era. Re-architected to meet the latest cloud computing principles, it brings a range of new capabilities and benefits:

- **Remote working for staff and contractors** – remote workers and operatives can use a range of mobile forms to complete tasks, process data and automate responses to your back-office systems using our out-of-the box solutions. Every housing provider has their own specific requirements and we support this in our new configuration toolset in the management studio.
- **Digitise rapidly** – all housing providers benefit from digital forms as part of their processes and Versaa makes this easy, either with pre-designed templates for standard housing tasks or letting organisations easily build their own forms and workflows from scratch if they want to. The Mobile Modules are out of the box, ready to deploy solutions, designed to digitise processes in the field quickly with limited configuration.
- **New features & Workflow Designer** – Customer feedback highlighted the need for easy-to-use visual solutions, so Versaa and its many new features focus on driving a better experience. Our new Workflow Designer has visualised workflows with an intuitive business process model and notation (BPMN) compliant interface. Integrated services mean you can automate complex procedures effortlessly between crucial business systems too.

More than ever, housing providers need cost-effective problem-solving and new service solutions, catering for an ever-changing mobile working environment, and Versaa has arrived to do just that.

With so much of our working life now happening beyond traditional offices, whether working remotely or fully mobile, isn't it time you planned a mobile transformation to benefit your staff and your tenants?

*Tina Kennedy is head of digital at Aareon UK.*





## An aerial view – Drone technology in housing

David Pounder, Future Aviation Systems Engineer,  
Connected Places Catapult

*The first quarter of 2021 saw unprecedented growth in construction, with housing representing 80 per cent of all new builds in the UK following lockdown. However, the restrictions of the pandemic have meant that many organisations are now lacking enough time and money to address the consequent maintenance and repairs that this upturn implies for the future. In social housing, it is estimated that English housing providers are already spending £5.5bn each year while housing 11 per cent of England's population.*

Drones are revolutionising the ways in which we can inspect and manage buildings and assets. Through our Drone Pathfinder Catalyst programme, backed by the Department for Transport, we help several sectors to harness innovative aerial technologies. Earlier this year, we partnered with Yorkshire Housing and drone service provider Vantage UAV to show how drone-powered building inspections could provide an increased return on investments and enable highly efficient property surveys, while improving resident satisfaction.

More and more organisations like Yorkshire Housing are beginning to opt for a planned preventative maintenance (PPM) approach, proactively inspecting and fixing potential problems before they become major issues; by allowing buildings to be inspected faster, more cheaply and therefore more often, drones support PPM regimes.

This leads to longer lifespans for property assets, fewer unplanned repairs, increased safety management and higher quality maintenance outcomes. The likes of Yorkshire Housing can also use the easily-interpretable data from the drones, sometimes collected in just a few hours, to benchmark and compare against future inspections.

### **How do drone inspections work?**

The inspections undertaken as part of the Yorkshire Housing project produced 4K-quality video footage and images of the building from all angles, with annotations of areas of interest or concern, so that the team could quickly identify where to focus attention during upcoming maintenance.

Orthomosaics and 3D models of each site also provided both an overall and detailed views of the buildings.



The 3D models produced by the drones' camera were photographic in detail and because they were constructed using geo-tagged data inputs and intelligent photogrammetry algorithms, the model was scaled accurately. With this data, Yorkshire Housing could take line, area or volume measurements of their properties with centimetre-level precision.

The inspections outputs were collated into a browser-based portal called Scopito, which was used to store, organise and inspect the hundreds of detailed photographs taken by the drones. This platform allowed the housing provider's surveyors to further annotate, categorise and locate any defects. Based on the annotations, automated PDF reports were generated for contractors and employees who needed the information to hand when carrying out maintenance.

### **Proactive maintenance**

To gain these insights, less than £10,000 was spent in total on the inspections and BIM (building information modelling) across three different sites. Yorkshire Housing predicted a greater than ten-fold return on investment by substituting expensive scaffolding, extensive roof repairs and roof replacements with well-informed streamlined maintenance. These results were achieved from around four days of onsite work, with minimal disruption to tenants and no need for any 'working at height'. Following the survey, the identified issues were streamlined, with the consequent repairs far less intrusive for residents, and the improvement of the asset life could save leaseholders a significant sum of money.

However, drone technology isn't just revolutionising how housing maintenance is managed. For organisations looking to operate more sustainably, specialist drones with thermal cameras can help to meet insulation targets.

### **Heat loss & sustainability**

Thermal inspections can provide accurate data about heat loss from buildings and, from the aerial vantage point of the drone, can capture more comprehensive and precise datasets than are usually possible from the ground. This data can then be used to justify interventions, reducing energy wastage through roofs, external walls, windows and defective installations. The sustainability case for drone inspections is even more compelling when we also consider the reduced need for heavy inspection vehicles such as cranes.

These are just a few of the ways that drone technology is helping the housing sector to make more sustainable decisions and to save money, supporting successful future development and creating better homes for people to live in.

Standardisation is the key to all manufacturing processes so by working to fixed dimensions, with proven and certified products, we can achieve the efficiencies that will meet the government's ambitious 'Future Homes' standard.

*David Pounder is a future aviation systems engineer for Connected Places Catapult.*



# ForHousing supports independent living with Alertacall

ForHousing is installing Alertacall's telecare technology to help its tenants in supported housing.

Tenants living in ForHousing's supported housing in Oldham can use the Alertacall touchscreens to pick up key information about their home or report repairs and, based on pre-agreed criteria, if the tenant doesn't press a button on the touchscreen within an agreed timeframe, a member of the

Alertacall team will contact them to make sure everything is okay with them and their property.

The technology also helps to identify property and tenancy issues at an early stage. All service interactions are recorded and made available in real-time via a secure online portal,

helping ForHousing's staff to detect changing needs and save time.

Karen Fitzsimon, supported living strategic lead, ForHousing, said, "The installation of the Alertacall system in the homes of our supported housing tenants in Oldham will let us identify any problems at the earliest stage."

## INFRASTRUCTURE

### Have your say – IoT deployment in housing



*With support from Aico, Housing Technology is researching social housing providers' plans and strategies for IoT devices, deployment and data management, the results of which will be published in our exclusive report at the end of this February/early March.*

If your organisation has any IoT plans, from totally vague through to fully-formed, we would really appreciate it if you could spare five minutes (we've tested how long it takes...) to complete our online survey about installing and managing IoT/smart-home devices in your tenants' homes (all data will be confidential and anonymised,

naturally). In return, we'll send you a copy of the report as soon as it is published.

**You can complete the survey at [housingtech.typeform.com/iothousing](https://housingtech.typeform.com/iothousing).**



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# Systems integration... We make it look easy, but how do we do it?

Alan Swift, Technical Director, Manifest Software Solutions

*We have all been at software demonstrations where someone in the audience has asked about integration. The answer is always “yes, we can integrate with anything”. How many times have you found this isn’t quite true? You don’t get the fully integrated solution you’d hoped for, and when something goes wrong, you find yourself trapped between solution providers arguing over whose fault it is. Well, it doesn’t have to be that way.*

Successful housing organisations are making the most of the many cost-effective solutions available in the cloud. Extending the power and functionality of their back-office HMS with specialist solutions such as Mobysoft’s arrears software, VerseOne’s self-service portals, PayPoint’s real-time cash processing system and, of course, the numerous Microsoft Dynamics solutions. They all require integration which can create a spider’s web of fragile point-to-point interfaces, each using different technologies and all supported by different suppliers.

### A new approach to integration

How do you start seeing integration as a powerful business asset instead of a complicated risk waiting to trip you up the next time you upgrade? The answer requires a change in thinking and a new approach.

Traditional interfaces are point-to-point; written by one system vendor (usually at significant cost) to only talk to one other vendor. All the business logic, formats and fields are hard-coded, making them inflexible and limiting their use anywhere else in the business.

Most system vendors will also give you the option of buying web services so in theory you can write your own interfaces. Unfortunately, each vendor uses different, incompatible web services, all based on different technologies and security principles, and all requiring different skills to use them.

Wouldn’t it be great to remove all of these barriers so you could finally have complete control over all the integration

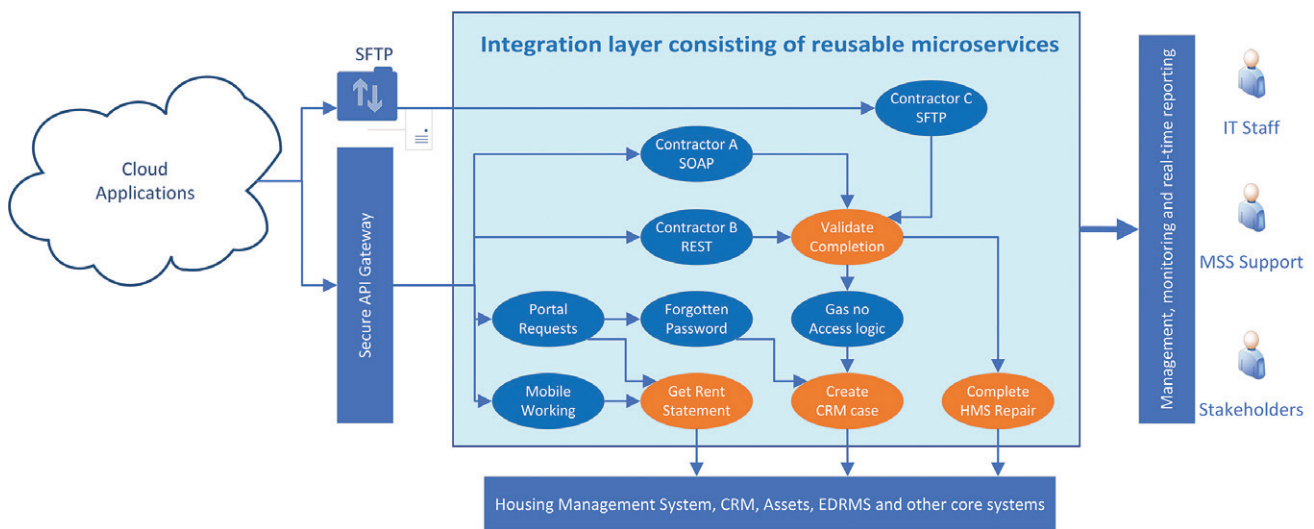
### Tip 1

Reuse the interfaces you already have as much as possible. Don’t worry about the format because it’s not important; SOAP, REST, XML, JSON, CSV, SFTP – none of it matters. Applications such as our Universal Adapter will seamlessly convert any format to any other format on the fly.

between your systems? That’s exactly what we do for our customers, but how do we do it?

The aim is to convert traditional interfaces and requests for data into re-usable microservices. Microservices are small, loosely-coupled business functions which can be thoroughly tested and securely called by any system. A microservice might retrieve a rent balance, add a repair or book an appointment. If it retrieves, updates or processes data, then it can be turned into a microservice.

Microservices are written once but can be used by many systems, making them extremely cost-effective and quick to deploy. A microservice that adds a repair can be published so it can be called from your CRM system, a customer portal or a mobile working app; it will always work reliably and consistently every time.



## Tip 2

Try to avoid asking software suppliers to write an interface because it costs a fortune, takes too long and they control what you do with it. Instead, just ask them what interfaces they already have and use one of them. You can then argue down the price because it's a standard product, plus you'll also know that it's tried and tested. Middleware like our Universal Adapter will allow you to use any interface that's available.

Another advantage of microservices is that they can be chained together by you to rapidly build new and even quite complex interfaces.

### An example of microservices

We are often asked to provide contractor integration. For example, there could be three repair contractors (each using a different system) that all want to be able to complete a repair in the client's HMS.

Traditionally, this would require the client to buy three bespoke interfaces from their HMS provider. Alternatively, the three contractors would each need to write a new interface that's compatible with the HMS.

Using microservices, you can just use a single standard HMS interface and the contractors can send you the data in any format they want. This saves a lot of money and a huge amount of time. The solution is flexible, and everyone is using standard supported interfaces.

The integration layer would simply comprise:

- A microservice that completes a repair in the HMS using the standard HMS interface;
- A microservice for validating the data before it's sent to the HMS, such as checking SoRs and target dates;

- Each contractor will have their own simple microservice that will authenticate them and accept the data in their preferred format.

You now have complete control over all the interfaces; the validation, who can use them and what formats they will accept.

Versioning can be used to allow microservices to be safely modified whenever you need. For example, perhaps you would like to extend the functionality to create a CRM case on a third 'no-access' visit. Simply add a microservice that creates a CRM case (by calling a web service), then create a modified version of the validation process so that it now checks for 'no-access'.

### Implementation in the real world

December 2021 saw the go-live of Westminster City Council's new Microsoft Dynamics CRM cloud solution, custom designed and built by their fantastic in-house development team. The architecture stipulated leaving all the data in the back-office HMS and relying completely on a suite of responsive REST web services to retrieve and update housing data in real-time.

Manifest Software Solutions worked closely with the in-house team, building an integration layer comprising over 60 microservices. These microservices expose views and allow updates of the data held in the HMS. The result was a cloud CRM system that is fully integrated with the on-premise HMS solution.

## Tip 3

Don't ignore the power and features of your underlying databases, such as SQL, Oracle or Progress. You should never update a database without the vendor's permission but it's your data, so read it as much as you want!

*“We have worked with Manifest Software Solutions since 2017 and they are, by far, the best software company I’ve worked with. They are helpful and flexible, and proactively come up with ideas. Their work far outweighs the value other companies provide and I can’t sing their praises highly enough!”*

**Steve Kesterton, ICT Project Manager,  
Black Country Housing Group**

important to note that how an interface works is not as important as understanding what it needs to do.

To ensure we are always on hand to help, each customer continues to have direct access to their implementer and our team of consultants at any time after go-live.

All the integration is fully supported by us, even if the interface was built by the customer. This comprehensive, no-quibble support ensures you never need to worry about integration ever again!

We love a challenge and are often asked to set up a proof of concept for customers who have been told previously that integration with their system is impossible. If you have a challenge, just let us know.

*Alan Swift is the technical director of Manifest Software Solutions.*



Successful integration is more than just technology We provide everything our customers need to integrate systems successfully. This includes providing experienced technical consultants who work closely with you to help design, configure and test all the integration.

All our technical consultants have extensive experience working in social housing IT. This allows them to properly understand the business requirements; this is essential when developing and testing any sort of interface. It's

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# Beating damp & mould with data

Roger Whittingham, Specification Manager, FireAngel

*The recent Housing Ombudsman’s report ‘Spotlight on Damp and Mould; It’s not lifestyle’, calls for housing providers to take a zero-tolerance approach to damp and mould in properties. It also asks them to be proactive in identifying homes that have or may be at risk of developing problems rather than putting the onus on tenants to report an issue.*

This follows guidelines outlined in the Charter for Social Housing white paper, where further pressure is placed on housing providers to offer high-quality, safe homes in good repair, including dealing fast and efficiently with any complaints of damp and mould.

However, the 2019-20 English Housing Survey identified serious condensation and mould problems in at least one room in three per cent of all social sector homes (133,000) while five per cent of homes (192,000) lacked ‘thermal comfort’. It’s a growing problem in our sector, with more than a third of tenants reporting damp and mould in their property and over 60,000 complaints relating to mould, damp or condensation received by local authorities between 2012 and 2018.

### Increased risk of health complications

Cold temperatures can cause a myriad of problems in tenants’ homes, from burst pipes to structural damage, but more commonly, from damp and mould. Under-heated rooms that suffer from an excess of moisture are particularly favourable to mould, such as bathrooms and kitchens, where everyday activities such as cooking,

showering, drying clothes and even breathing, create moisture which can lead to condensation.

Without the right tools or ventilation in place, these factors can quickly lead to the presence of damp and mould. In the Housing Ombudsman’s report, the top four causes of damp and mould are identified as poor ventilation (30 per cent), leaks (23 per cent), structural (20 per cent) and condensation (18 per cent).

As a type of fungus, mould reproduces through microscopic spores that float on the air, looking for a new home. These spores thrive on nearly any organic surface as long as it has moisture and oxygen. This includes surfaces commonly found inside housing such as carpets, wood, furniture and materials used for insulation.

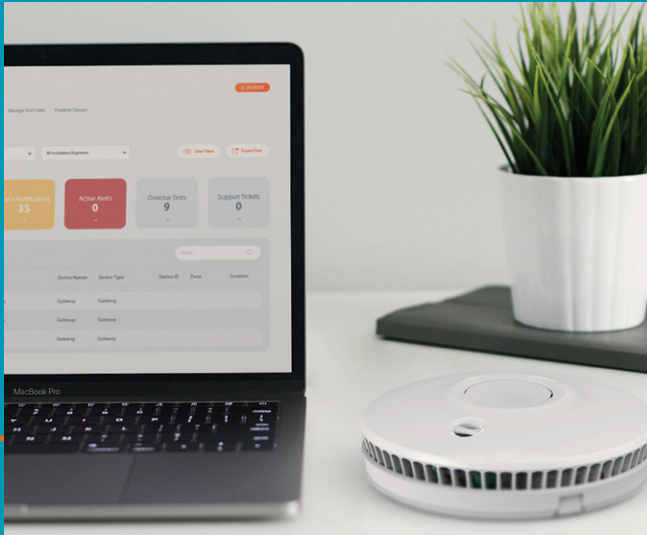
Damp living conditions can lead to serious health implications, with asthma sufferers especially at risk due to mould spores triggering symptoms. But the elderly, the very young and anyone who is immuno-compromised are also at risk of health complications.

### Significant cost impact

Alongside health complications, mould and damp also have considerable cost implications for housing providers. The cost of remedial fixes for small condensation issues can be high, with the estimated damage to a property’s paint and plasterwork alone costing around £700 per property. This can often be followed by more expensive improvements to combat the causes of condensation, damp and mould.

Implementing external wall insulation and ventilation costs around £1,500 per property, and when looking at the number of social housing properties in need of work – these figures will soon add up into the millions.

Then there’s also the threat of legal action from tenants. A recent case in London saw a tenant secure a £3,500 settlement after several years living with poor conditions,



including the presence of damp and mould. It was the second time the resident made a housing claim against the London borough due to 'recurring issues'.

Although the Housing Ombudsman recognises that it's a daily challenge for housing providers to tackle this difficult problem, the report advises against placing the blame on residents due to 'lifestyle'; instead, the document identifies 26 recommendations for housing providers to implement.

One of these recommendations is to use "a data-driven, risk-based approach with respect to damp and mould.

This will reduce over-reliance on residents to report issues, help landlords identify hidden issues and support landlords to anticipate and prioritise interventions before a complaint or disrepair claim is made."

There are a variety of new solutions available that enable housing providers to take a data-driven approach; the installation of IoT sensors in residents' homes can provide real-time data on a property environment, enabling early interventions to pre-empt a problem getting any worse.

### Digitising your data capture

These unobtrusive temperature and humidity sensors can create a holistic view of a property's environment. The devices capture humidity and temperature data, providing real-time information for housing providers to actively review and spot any environments where mould or damp could easily develop.

Housing providers can then deliver tailored support to tenants and provide accurate information about where they need to prioritise maintenance, such as installing better ventilation or insulation, or identifying residents who may benefit from referrals to fuel poverty support groups.

### Future regeneration

Data collected from IoT sensors will also play a role in future regeneration projects. Analysing the data for trends and patterns can show housing providers which regions or properties are particularly prone to damp (such as those in

coastal areas) and ensure those properties have the right insulation and ventilation installed. However, all of this requires the right technology.

With FireAngel Connected, housing providers can create a tailored network of sensors and devices to detect everything from fire and carbon monoxide to water leaks and room occupancy. IoT devices and sensors are wirelessly connected to the platform through our New Generation Cellular Gateway using Smart RF and Zigbee technologies.

### Integration with asset management

Housing providers can then access each device's data using our intuitive dashboard, allowing them to identify environments that could lead to damp and mould. Humidity and temperature data can be integrated into housing providers' existing asset management systems, enabling them to easily spot trends and allocate resources more efficiently. And because we've designed our gateway to use cellular signals alongside a wi-fi back-up, housing providers can be confident that it's always on and always connected.

By acting early, housing providers can stop costs escalating. Damp is less likely to become an expensive headache to fix, and with better living conditions, tenants will feel more comfortable and safer in their home environment.

To find out more about FireAngel's Cellular Gateway or about our Connected platform, get in touch with our team of specialists by visiting [fireangel.co.uk/connected](https://fireangel.co.uk/connected).

*Roger Whittingham is a specification manager at FireAngel.*

**FireAngel.**

# Securing IT – Cyber security in housing



Steve Baldry, IT Director, Orbit Group

*Cyber-attacks are a major threat for any business and housing providers aren't immune. The pandemic has forced almost all housing providers to rely more heavily on digital services to carry out their operations, but this has also enhanced their vulnerability.*

Email-phishing attacks alone saw a seven-fold surge during the pandemic, demonstrating the growing danger of cybercrime and the need to implement sufficient cyber-security measures to protect an organisation and its customers. If housing providers don't take the necessary precautions to protect themselves against these attacks then they themselves will become active targets.

## **A realistic threat?**

The threat to housing providers is very real, with several having experienced major cyber-attacks during the past year and severely disrupted services. These attacks are only likely to increase as housing providers continue to develop their digital offerings. If housing providers are going to protect themselves, they need to be aware of these types of threats and ensure that their IT systems are capable of preventing such attacks.

Importantly, it's not only their own organisation that they need to consider, but third-party suppliers and external partners as well. With increased collaboration across both the public and private sectors, any compromise in third-party IT systems would also impact housing providers and their tenants, so this must be considered, especially when protecting sensitive data. Significantly, public-sector organisations have an above-average likelihood of using

older technologies and legacy systems, both of which will increase their vulnerability to cyber-attacks.

With housing providers usually holding large amounts of sensitive data on their tenants, it's vital they have the right systems to prevent any data losses and protect their operations. There are three core areas security teams should focus on – the corporate culture, shadow IT and third-party providers, and investment in IT security.

## **Corporate culture**

Improving the security culture across the organisation through user awareness and training can have a dramatic effect in prevention. Your staff and colleagues are the best defence against cyber-attacks, but they are also your organisation's greatest vulnerability. Email phishing commonly leads to data breaches where attackers pose as legitimate sources, convincing the user to click on a link which may download a virus onto their computer or steal particular pieces of information. With consistent training and greater awareness, colleagues will be more suspicious of emails and more prepared to scrutinise them.

## **Shadow IT & third-party providers**

Housing providers need to reduce the risks posed by shadow IT and third parties. The drive to improve productivity and innovation through the use of new





software, web services and hardware without explicit approval from the IT department can introduce serious security risks to an organisation through data leaks and potential compliance violations.

Organisations can minimise this risk by educating their end users and taking preventative measures to monitor and manage unsanctioned applications. Furthermore, data is constantly shared across partners and suppliers so it's critical to know what steps are being taken to safeguard the information further down the value chain. Without this, a housing provider may be forced to respond to incidents that are beyond its control or originate from an indirect source, resulting in significant reputational damage or loss of customer data.

### Investment in IT security

Maintaining your investments in IT is crucial to remaining one step ahead. Cyber-attacks and threats are continuously evolving and becoming more complex and sophisticated. Experienced criminals can now deploy persistent attacks incredibly fast and responding to these types of threats requires an equally speedy approach from housing providers' IT security teams.

Your IT systems and security methodologies need to be constantly re-assessed as threats adapt and change; if your systems are compromised, it's usually too late to take preventative action because the damage will already have been done.

Ultimately, cyber security isn't just an IT problem, but the responsibility of everyone in your organisation from the board downwards. As a result, it's vital that each person understands how their actions, both individually and collectively, can affect the protection of their organisation and your tenants' data. Failure to do so can result in censures and significant fines from regulatory bodies, as well as a loss of customer confidence and reputational damage.

Proactive cyber security and risk management needs to become an everyday part of a housing providers' culture, and each colleague, supplier and third party needs to play their role in preventing any potential attacks or breaches.

*Steve Baldry is the IT director of Orbit Group.*



# IoT for safe & sustainable housing

Chris Jones, CEO, HomeLink

*In order to tackle climate change, net-zero targets have been introduced around the globe across local, national and international scales. Reaching net zero is likely to be the most important and pressing challenge our society will face during our lifetimes.*

Our homes contributed more than 20 per cent of the UK's total carbon dioxide emissions last year through the burning of fossil fuels for heating and cooking, and this figure is significantly higher when including emissions from the production of the electricity we use. We all have a responsibility to reduce our emissions and we can play an active role by decarbonising our own homes.

## **The connected home...**

With innovations in IoT technologies, the notion of a connected home could prove a real asset in making homes not only more sustainable, but also more efficient and ultimately safer – with a focus on wellbeing. Substantial progress has been made in reducing emissions in other areas such as electricity generation, with the replacement of coal with greener alternatives such as wind and solar. Our homes, however, have shown little improvement. New, well-insulated homes go some way to addressing this and can use IoT technologies to ensure they are performing as promised.

These technologies are not restricted to new homes, however, and there is a real opportunity to use IoT to improve the understanding of our existing homes. The UK has some of the oldest housing stock in Europe and this presents its own challenge to decarbonisation. Draughty and poorly-insulated homes are more difficult to heat and result in higher emissions. Reducing the energy needs of older homes is crucial both in reducing their carbon impact and in tackling fuel poverty. IoT technologies can identify the poorest performing homes to reduce emissions and help to provide affordable and healthy living environments.

## **Residents' perceptions**

Housing providers are increasingly realising that IoT can bring many benefits through improved maintenance efficiencies, investment optimisation and compliance. Despite this, they often worry about residents' perceptions if IoT were adopted. For example, they worry that residents might reject the technology for privacy reasons or that they could be perceived as some sort of 'big brother' organisation.

The results of interviews and surveys carried out in recent research by HomeLink with dozens of landlords and hundreds of residents, showed that concerns exist on both sides, particularly when it comes to privacy, data ownership and consent, as shown in the chart opposite.

When delving into the details, there are two key influences that alleviate these concerns; experience of the technology and trust. Through engagement with residents on numerous projects, it's clear that residents are glad to have adopted this technology (for all the benefits previously outlined) after they have lived with it for only a short period of time. Our research also indicates that those who have greater trust in their housing provider are more accepting of IoT. Trust also extends to social circles; evidence of this is always apparent when scaling up IoT projects – each resident from the initial pilot always puts forward dozens of neighbours and friends for subsequent IoT projects.

## **Actionable insights**

Aico's new HomeLink Environmental Sensors are designed to create better maintained, healthier, more



### Resident & landlord perceptions

energy efficient homes, placed throughout the home to monitor temperature, humidity and carbon dioxide.

The sensors provide actionable insights into conditions such as mould risk, draught risk, excess cold, heat loss and indoor air quality. Humidity and carbon dioxide monitoring via the HomeLink Environmental Sensors helps to manage the quality of the air in properties, ensuring adequate ventilation and air circulation, and identifying preventable issues such as damp and mould at an early stage.

Understanding of the potential transformative impact that IoT technology could have on the landlord-customer relationships first arose during a GovTech project between HomeLink and Leeds and York Councils, where in-depth interviews were carried out with approximately 100 residents to understand the acceptability and likely engagement they would have with IoT data.

#### IoT ethics research

This project led to two significant outcomes for HomeLink; first, the development of an app for residents and second, the beginning of an ongoing IoT ethics research programme. It was clear during this project that IoT product development in housing needs to consider the resident as much as it does the landlord. By taking this approach, HomeLink is ensuring that IoT adoption will not only be welcomed by residents but that the potentially huge win-win scenario is realised.

As resident engagement is crucially important when it comes to using IoT technologies within homes, Aico has developed the HomeLink Resident App, specifically designed for our Environmental Sensors, in order to

empower residents. Through the app, residents are provided with personalised, user-friendly data and insight into their 'home health' through an overall rating, temperature, humidity and carbon dioxide data and handy advice on the measures they can take to improve the quality of their home, including alarm testing notifications.

There are many ways in which IoT can transform customer relationships and these broadly fit into two categories:

#### Happier residents

- Improved living conditions – healthier and safer;
- Financial savings from targeted energy efficiency measures;
- Empowered with data and insights.

#### Less relationship friction

- Preventative maintenance leads to fewer reasons to visit and call;
- Fault transparency, such as the likely cause (structural or lifestyle) of mould being clear;
- Resident app engagement, such as appointment scheduling and repairs feedback.

The new HomeLink Environmental Sensors, HomeLink dashboard and Resident App adds another dimension to resident safety while helping landlords to meet their strategic goals, creating safer, healthier homes.

*Chris Jones is the CEO of HomeLink.*





# IoT & access control in housing

James Gray, National Sales Manager, Videx Security

*Social housing developments are often home to the most vulnerable people, from the elderly who need 24/7 homecare support to those living with disabilities or impairments. In short, IoT makes their homes safer. There are many examples of IoT applications, from devices to detect leaks before they become a problem to smoke detectors being able to call the fire service direct.*



## Empowering tenants

From an entry and access control point of view, there are many advantages of IoT technologies. At the simplest level, it enables tenants to open their door from a mobile device, talk to a visitor without authorising entry to ensure they know who they are, and answer calls to their door when they're out.

## Remote control

Social housing has seen large growth in the use of smart systems, with a focus on fault finding/reporting and remote management, saving time, money and reducing carbon emissions. For example, in the past, a housing provider wanting to update its list of residents for a certain property would have had to arrange for a housing officer to visit the property, only to then find that they don't have the correct key, whereas with an IoT smart solution, they can programme a new key fob there and then. The same applies when a tenant needs to be removed or their entry authorisation edited.

## Automatic diagnostics

Another great use for IoT entry systems is if there is a fault on the system, alerts can be automatically sent back to the housing provider's back-office systems. This saves

time with on-site fault finding and can also give a good indication of which parts might be faulty. Other alerts or email notifications can also be sent about, say, a fire door being propped open; the operator can then see who the last person to unlock the door in question was so that they can be contacted.

## Centralised reporting

Another benefit is that all local alarms can be received and transmitted back to a central hub. In a pre-IoT world, if a property has fire, intruder and flood alarms, these would all have to be received and managed separately, but if they are all IoT-enabled, all alarm signals can be managed from a single point and via one operator.

IoT developments will continue to bring even more benefits, helping to provide safe and convenient access control management to housing providers and their tenants.

*James Gray is the national sales manager for Videx Security.*

## SPECIAL FEATURE

# Proptechs and IT start-ups in housing

*Following our two previous overviews of the new IT companies in our sector (see Housing Technology, January 2020 & January 2021), we return again with a selection of proptechs and IT start-ups that are focused on developing new technologies for social housing. Our 2022 companies are all based on recommendations we received from housing providers at the end of 2021.*

## AJAX SYSTEMS

Ajax Systems is a European manufacturer of professional security systems with smart-home capabilities. The product range features both wireless and wired devices for protecting residential and commercial properties from intrusion, fire and flood as well as automation modules for managing appliances.

The system supports photo verification of alarms, automation scenarios, and integrated video surveillance. Today, Ajax reliably protects over one million users in 130 countries.

[ajax.systems](https://ajax.systems)

**Contact:**

Valentine Hrytsenko, CMO  
val@ajax.systems



## BIMDL

Bimdl is a cloud-based technology platform using crowdsourced intelligence, allowing stakeholders to share knowledge on the state of facilities and components.

Using blockchain technology to create a 'golden thread', the SaaS platform incorporates GIS and BIM, providing a complete overview to ensure housing providers meet building safety compliance and sustainability targets as well as their tenants' needs.

[bimdl.com](https://bimdl.com)

**Contact:**

info@bimdl.com



## BUILT-ID

Built-ID is the award-winning 'tech for good' innovator behind the Give My View community engagement platform.

We consistently generate incredible community engagement results for organisations such as The Royal Borough of Kensington and Chelsea, Legal & General, RWE and The City of London, empowering community members who have been excluded from decisions that shape their local surroundings in a more meaningful, demonstrable way.

[built-id.com](https://built-id.com)

**Contact:**

Oby Bamidele, COO  
sales@built-id.com



### CERTON

Built specifically for housing providers and multi-property estate companies, CertOn Pro provides everyone with full transparency of all documents associated within a property or building.

Using QR code technology alongside an app and web portal, CertOn Pro centralises all work outputs, enabling tradespeople and end-users to understand the management and maintenance history of a property. This ensures people work more effectively and provides better visibility and stronger compliance for landlords.

[certon.co.uk](http://certon.co.uk)

**Contact:**

Boyd Goulden, Managing director  
[boyd@certon.co.uk](mailto:boyd@certon.co.uk)



### CLIXIFIX

Clixifix is one of the fastest-growing proptech companies in the UK. The award-winning defect- and repair-resolution software reduces time spent on administration, delivers lower costs and higher customer satisfaction.

Clixifix is currently used by housing providers, housebuilders, principal contractors and sub-contractors across social housing, residential, commercial and projects/developments throughout the UK and abroad.

[clixifix.com](http://clixifix.com)

**Contact:**

[hello@clixifix.co.uk](mailto:hello@clixifix.co.uk)



### CLOUDSHIFT

CloudShift delivers Salesforce, Tableau and MuleSoft solutions that transform housing & portfolio management, sales & marketing, staff experience and customer service.

[cloudshiftgroup.com](http://cloudshiftgroup.com)

**Contact:**

[hello@cloudshiftgroup.com](mailto:hello@cloudshiftgroup.com)



### CLUSTER REPLY

Cluster Reply specialises in delivering cloud solutions using Microsoft Azure. It is a global award-winning Microsoft Gold certified partner with over 21 years' experience delivering digital transformations using Microsoft technologies.

One of Microsoft's key partners for integration and Azure, Cluster Reply has focused on the housing sector, with customers including Wheatley Group, Guinness Partnership, NHS Property Services, Octavia, Sovereign Housing, Savills, Grainger's, Glasgow CTP and many local authorities.

[reply.com/cluster-reply](https://reply.com/cluster-reply)

**Contact:**

Andy James, Associate partner  
[ajames@reply.eu](mailto:ajames@reply.eu)



### COMMONPLACE

Commonplace powers positive participation. We are passionate about giving people a meaningful voice in changes to their neighbourhood.

Commonplace works with housing managers to create stronger communities and with residential developers to design new neighbourhoods. Our digital platform has been used on 1,400+ projects by over four million people.

[commonplace.is](http://commonplace.is)

**Contact:**

[hello@commonplace.is](mailto:hello@commonplace.is)



**CONVERSE360**

Converse360's 'Assist-Me' service automation platform enables housing providers to automate customer engagement through web and social messaging, telephony and life-like digital avatars to serve customers on their device of choice.

The 'no code' portal is simple for anyone to create and edit end-to-end workflows in minutes and comes with 100s of housing

templates. Out-of-the-box connectors to contact centre/teamwork apps allow seamless hand-off to live-agents, integrations to housing management/CRM, RPA, email and SMS allow complex journeys to be built, and powerful analytics provide detailed breakdowns of every interaction. Our customers include East Midlands Housing, ForHousing, Great Places, Grand Union, Futures and Sovereign Housing.

[converse360.co.uk](https://converse360.co.uk)

**Contact:**

Richard Brown, Director  
richard.brown@converse360.co.uk

**E&F SOLUTIONS**

The housing sector does amazing things and E&F Solutions is on a mission to bring it together and package it up within Microsoft Dynamics 365.

We've collaborated across the sector and created core modules (such as ASB, complaints and lettings) and shared them free via the '#D365forHousing' movement, an affordable, innovative and collaborative way to implement Dynamics 365, freeing up your funds to build homes and help your tenants.

[deliveringcrm.net](https://deliveringcrm.net)

**Contact:**

Chris Roberts, Director  
chris.roberts@efsolutionsltd.com

**FIXFLO**

Fixflo is a leading provider of maintenance management solutions.

With over 1.2m units on its cloud-based platform across social housing, build-to-rent, block management, student accommodation and lettings, Fixflo helps property operators improve efficiency, exceed customer expectations and meet compliance standards. From reactive repairs to planned maintenance, Fixflo empowers you to automate manual tasks with a powerful, integration-ready system.

[fixflo.com](https://fixflo.com)

**Contact:**

Simon Bushell, Head of sales  
simon.bushell@fixflo.com

**FLS – FAST LEAN SMART**

Bringing its expertise from beyond the housing sector, FLS offers dynamic scheduling and route optimisation solutions for digital transformation to drive all-new levels of productivity and customer engagement.

Customers range from 50 to 1000s of operatives and rate us 9.6/10. FLS is a Microsoft partner for Dynamics 365 and integrates with other leading HMS and repairs systems direct or via Manifest's Universal Adapter. Our customers include Amey, Axis Europe, Fix360 (Your Housing Group), HomeServe, JLA Group and T Brown Group.

[fastleansmart.com](https://fastleansmart.com)

**Contact:**

Jeremy Squire, Managing director  
info@fastleansmart.com

**FUZZLAB**

Fuzzlab only makes chatbots for housing providers.

Our product was developed using hundreds of thousands of resident interactions, taking the effort and risk out of implementing your chatbot. Tenants can book repairs, report ASB, register for housing, see rent balances or raise complaints. Our chatbot integrates with your HMS to provide personalised self-service, all through an easy-to-use chat window.

[fuzzlab.co.uk](https://fuzzlab.co.uk)

**Contact:**

Scott Summers, Co-founder  
scott@fuzzlab.co.uk



## HUBB

Hubb is building a platform that aims to change the way people think about designing homes.

Hubb is a cloud-based platform that empowers developers and designers to build low-carbon, net-zero homes. We're combining the power of data science with human design expertise to help create sustainable and well-crafted homes.

[hubb.pro](http://hubb.pro)

**Contact:**  
James Major  
[james@hubb.group](mailto:james@hubb.group)



## HUUME

Huume is an innovative SaaS housing solutions provider, offering cloud-based housing register, choice-based lettings and homelessness solutions.

Formed in 2019, Huume's ethos is to change the way that Housing Needs software is delivered. By collaborating with housing professionals and leveraging new technologies, Huume provides valuable housing IT solutions that adapt and evolve to simplify Housing Needs management.

[huume.co.uk](http://huume.co.uk)

**Contact:**  
Kevin Millard, Product manager  
[kevin@huume.co.uk](mailto:kevin@huume.co.uk)



## INCLINE-IT

Incline-IT provides IT services built around you.

We maximise the value of your IT investments and keep your business up to speed with cutting-edge technology and services designed with scalability in mind. With a focus on highly-skilled resources and the use of innovative technologies to deliver automation in services, we get it right first time.

[incline-it.com](http://incline-it.com)

**Contact:**  
[sales@incline-it.com](mailto:sales@incline-it.com)



## IOPT

iOpt's sensors remotely measure the environment, energy usage and areas of compliance such as legionella and fire within a property, or building.

The data generated is used to produce operational and strategic reports as well as alerts that allows housing providers to mitigate problems and allows asset managers to become more preventative in the way they work.

[ioptassets.com](http://ioptassets.com)

**Contact:**  
Emma Blackmore, Client engagement  
[emma.blackmore@ioptassets.com](mailto:emma.blackmore@ioptassets.com)



## IOT SOLUTIONS GROUP

Improving communities through remote monitoring, we make smart technology simple.

Collecting data to make informed decisions can be complicated; we work alongside housing providers to develop solutions that deliver real-time insights, with no mains power, wi-fi or technical knowledge needed. We work with customers to develop housing, health and social care, parking, and waste management solutions.

[iotsg.co.uk](http://iotsg.co.uk)

**Contact:**  
[hello@iotsg.co.uk](mailto:hello@iotsg.co.uk)





**KERFUFFLE**

Kerfuffle helps housing providers and property companies find the right proptech suppliers through its innovative supplier search.

Kerfuffle also helps address your pain points through consultancy, training and proptech advice.

[kerfuffle.com](https://kerfuffle.com)

**Contact:**  
enquiries@kerfuffle.com


**KODERGARTEN**

Kodergarten was set up in 2019, and there are now eight of us working on a range of projects covering social housing, public transport, IoT, smart towns/places and school transport.

Our work includes partnering with a leading Welsh housing provider to deliver a low-cost IoT data collection and reporting tool; the pilot has been successful and we're hoping to build on this during the course of 2022. We're also developing an IoT-based, Raspberry Pi-controlled water tank- & gas bottle- monitoring solution for a remote 'off grid' island community.

[kodergarten.com](https://kodergarten.com)

**Contact:**  
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paul@kodergarten.com

**LANDHAWK**

The LandHawk platform is designed for housing providers, land agents, developers, planning teams and consultancies looking for the right development land, fast.

Users can assess land parcels in detail, combining hundreds of data sources to provide powerful insights for any parcel of land in the UK. LandHawk reveals information that could affect a project such as site constraints, planning information or sales values. This is all done via software that is easy to use, interrogate and present.

[landhawk.uk](https://landhawk.uk)

**Contact:**  
hello@landhawk.uk

**MORE IQ**

More IQ offers one of the first 'true cloud' dynamic scheduling systems, offering cost-based global optimisation across multiple workstreams including appointments, PPM, servicing, projects and voids.

More IQ's API is designed to be incorporated within housing providers' existing repairs and job management systems to give the benefit of a consistent UX/UI for end-users.

[moreiq.com](https://moreiq.com)

**Contact:**  
Nick Shipton, Managing director  
nick.shipton@more-iq.com

**NOLIWORK**

NolijWork addresses the new realities of hybrid and remote working and can be used on its own or alongside Microsoft Teams.

NolijWork is a cloud-based platform (Microsoft Azure) for work mapping & coordination. It is designed to streamline service delivery for stakeholders, while making work better and more aligned for staff. The platform's

intuitive mapping approach aligns outcomes, stakeholders and your staff using a 'journey-centric' methodology. The platform is designed for rapid work configuration within a matter of hours, while eliminating the need for technical staff and/or business analysts by putting business users at the centre of service design and delivery.

[nolijwork.com](https://nolijwork.com)

**Contact:**  
Paul O'Neill, Co-founder  
paul.oneill@nolijwork.com



### OPTUS HOMES

What's your annual call-centre budget per tenant? Optus Homes will slash it to pieces with the most powerful and fully-integrated tenant self-service solution, exclusively for housing providers.

The Optus Homes tenant app is available to housing providers of all sizes, and integrates with your existing HMS, CRM and payment

gateway provider. Whether you're currently using a Capita, MRI, Civica or Dynamics system, we can integrate with it. And if you have one that we haven't previously integrated with, we'll do a free proof-of-concept.

A powerful and intuitive mobile app beats a web portal any day, but for good measure we can also provide a matching tenant web portal.

[optus-homes.com](http://optus-homes.com)

**Contact:**  
Gerry Kelly, CEO  
[gerry@optus-homes.com](mailto:gerry@optus-homes.com)



### PIVIGO

Pivigo uses AI to help housing providers reimagine arrears management.

We predict when tenants are likely to fall behind with their rent, 3-6 months before it happens. By also providing a 'smart caseload', our platform reduces the number of false cases, freeing staff time to focus on positive preventions rather than chasing debt and recovering missed payments.

[pivigo.com/sectors/housing](http://pivigo.com/sectors/housing)

**Contact:**  
Neil Forrest, CCO  
[neil.forrest@pivigo.com](mailto:neil.forrest@pivigo.com)



### RENKAP

RenKap is the first of its kind development management platform. Its first product replaces the traditional site-investigation process with a faster and more efficient method for identifying the risks on any given site.

Housing providers and public-sector developers can now commission, instruct and manage all of their separate site-investigation surveys within hours instead of weeks.

[renkap.com](http://renkap.com)

**Contact:**  
Gonzalo Marquesini, Founder  
[gonzalo.m@renkap.com](mailto:gonzalo.m@renkap.com)



### R-HAUZ

R-Hauz is building the next generation of homes, helping housing providers solve the housing crisis through innovative construction technologies.

R-Solution is to create gentle density by scaling rental solutions through mid-rise and 'laneway' housing, while working with councils to implement established policies. We provide turnkey, pre-fabricated housing solutions by building products that are faster, smarter and more sustainable.

[r-hauz.ca](http://r-hauz.ca)

**Contact:**  
Francesca MacKinnon  
[francesca@r-hauz.ca](mailto:francesca@r-hauz.ca)



### SKYROOM

Skyroom is a technology, design and airspace development company.

Our solution helps housing providers and landowners to maximise the economic, social and environmental value of their property portfolios. Our customers include Clarion Housing, University College London Hospitals Trust and Anchor Hanover.

[skyroom.london](http://skyroom.london)

**Contact:**  
[info@skyroom.london](mailto:info@skyroom.london)

SKYROOM



**SWITCHEE**

Switchee's mission is to fight fuel poverty and provide social housing providers with remote data insights that cut maintenance costs and improve tenants' wellbeing. Using five sensors, Switchee is able to understand occupancy and optimise heating settings, saving residents up to 17 per cent on their energy bills. This data is also used to produce a landlord dashboard displaying a range of welfare and

maintenance KPIs and alerts such as mould risk, poor insulation, fuel-poverty risk, boiler performance and disrepair risk.

We are delighted to be working with over 90 Social Housing Providers across the UK and we are proud winners of the Queen's Award For Innovation: Enterprise 2020.

[switchee.co](https://switchee.co)

**Contact:**  
info@switchee.co

**TCW**

TCW is a unique SaaS platform revolutionising compliance and asset management, providing services to over 1.2 million properties across the UK.

We give our customers the ability to unlock the strategic value of their data, leading to actionable insights that enable proactive risk-reducing and cost-effective decisions and investment strategies to be made based on fact, not assumptions. TCW turns information into insight.

[tcwin.co.uk](https://tcwin.co.uk)

**Contact:**  
info@tcwin.co.uk

**TENACITY**

TenaCity's ethos is to work with housing providers to identify and refine their existing processes, then use low-code technologies to streamline their workflows for better operational efficiency and accuracy.

With both technical and business process experts on our staff, we can understand your needs, guide you on the best way to move forward, and then deliver a bespoke solution to drive you forward.

[10acity.co.uk](https://10acity.co.uk)

**Contact:**  
Steve Webb, CEO  
steve.webb@10acity.co.uk

**TRUE COMPLIANCE**

True Compliance is a SaaS provider which helps housing providers to automatically read, process, store and manage all of their compliance documentation and processes in a single, smart and easily-configured system.

Our software gives you a real-time view of your compliance, improves confidence in assurance and reduces frustration, helping to increase productivity, improve data collection and integrity, and highlight cases needing your attention. Our customers include Metropolitan Thames Valley, Orbit, Optivo, Octavia, A2 Dominion, Notting Hill Genesis and London Borough of Ealing.

[truecompliance.co.uk](https://truecompliance.co.uk)

**Contact:**  
Jay Dudley, Business development lead  
jay@truecompliance.co.uk

**VANTAGE UAV**

Vantage UAV is a leading provider of drone-based data collection services.

Our mission is to enable our customers to manage and maintain their assets in a cost-effective, safe and efficient way. The flexibility, accuracy and access that drones can offer is unparalleled, particularly in accessing rooftops and other difficult to reach areas. Our intelligent data capture methods produce detailed outputs including 2D imagery, 3D modelling and thermal imaging, ensuring smarter decisions and better asset management.

[vantageuav.com](https://vantageuav.com)

**Contact:**  
Emily Morley, Marketing manager  
emily.morley@vantageuav.com





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# BOOK NOW FOR HOUSING TECHNOLOGY 2022

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*There are now only around five weeks until the start of Housing Technology 2022 (02-03 March, nr. Oxford). Owing to the current pandemic restrictions, our total capacity for the event is necessarily lower than normal; there are now fewer than 75 places available for the in-person aspect of the conference, alongside our real-time digital 'simul-cast' being run in parallel. **Find out more and reserve your place at [conference.housing-technology.com](https://conference.housing-technology.com).***

Running every year for over a decade, the Housing Technology annual conference is the longest-running and arguably the most significant public forum for anyone involved (directly or indirectly) with IT in the UK social housing sector.

Most of our guests and speakers come back year after year in the secure knowledge that spending one or two

days away from the office with their peers from other housing providers is the most efficient, productive and enjoyable way of keeping their fingers on the pulse of housing IT. A frequent comment from guests is just how much ground they cover and how much they learn during just a couple of days at the conference.

## Keynote presentations



**Andrew Grill**  
**The Actionable  
Futurist™**

**Joining the dots with  
connected housing...**

What's new, what's next and how you should plan for the decade ahead. The Actionable Futurist, Andrew Grill, talked about 'The devil is in the data' at Housing Technology 2021. He returns for 2022 to look further into the future, with his top 10 predictions for the next year and the next decade. He will expand on his 2021 ideas to look at: the concept of smarter homes as a network endpoint; the rise of super-apps; bundling technologies to provide dynamic predictions for your entire housing portfolio; digital apprenticeships and digital literacy; and the balance between human- and technology-centred connections.



**Timandra Harkness**  
**Presenter & writer**

**What can data do for you?  
(and what can't it do?)**

Thanks to the digital revolution, each of us now expects our own unique solution to everything from fashion to dog food (yes, really). Data can deliver profiling, prediction and personalisation like never before. But as well as opportunities, the technology throws up new challenges and dilemmas. How do we use data and AI to do things better, without losing the person at the heart of personalisation?

Find out more and reserve your place at [conference.housing-technology.com](https://conference.housing-technology.com)



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- **Aico:** Smart Home – The Link
- **BPHA:** Digital & cultural transformation despite a pandemic
- **Capita:** Data & decarbonisation (exact topic tbc)
- **CHP:** An opportunity to transform – The Covid effect
- **Civica & Teign Housing:** Helping residents find their voice
- **Esuasive & Trivallis:** The best of both worlds – Transforming our digital experience with Dynamics 365
- **FireAngel:** Connected communities – Adopting a data-driven approach to reduce risk and protect residents?
- **Halton Housing:** Digital twins and asset-data innovation
- **Housing Solutions:** Follow the yellow brick road – A journey to the public cloud
- **Itica:** Changing the customer proposition in a digital landscape
- **Link Group:** Link's group-wide 'innovation challenge'
- **Littlefish:** Modern cyber defence – Discover how to protect against current and future threats
- **MHA:** Our digital journey... Including dogs, giant tablets, clouds, music & apps
- **MIS Active Management Systems:** Your path to the future
- **Mobysoft:** Making the integration of your technology ecosystem simpler
- **NEC Software Solutions:** Managing disrepair – Today and in the future
- **Optivo:** Our integrated handover solution – A Scrum project
- **Optus Homes:** Be the hero – Slash your call-centre costs
- **Orbit Group:** Great tenant communications – Who, what, where, when & why?
- **Places for People:** Improving customer and colleague experiences (CX) – Fostering a product mindset & DevOps in IT support
- **Project CHAI:** Project CHAI – Cyber hygiene in AI-enabled domestic life
- **Raven Housing:** How to face and conquer the challenges of transformation
- **RedkiteCRM, WWHA, Wandle & Inquilab Housing:** Panel discussion – Using Microsoft Dynamics for the management of rent accounting and controlling arrears.
- **Rooftop Housing:** Business strategy for a digital world – Achieving best-in-class digital transformation
- **Royal Borough of Kensington & Chelsea:** A unique housing technology journey
- **Scottish Federation of Housing Associations:** Digital maturity in Scottish housing
- **South Lakes Housing:** Tackling organisational change & digital transformation as a smaller housing association
- **TechLabs London:** A Dynamics 365 CE & Power Platform complete HMS... Welcome to iProperty Cloud
- **TechLabs London & Raven Housing:** Achieving tangible business benefits through IT innovation, automation & AI – The feature-rich Microsoft and iProperty Cloud platform
- **TSG:** Powering up your digital transformation with Microsoft 365
- **Vivid Homes:** 'U can't touch this' – Automating the risk and effort from compliance
- **Wrekin Housing:** The Covid shot in the arm – How it opened our eyes to modernising and evolving
- **Yorkshire Housing:** Hub, home & roam – Doing things the Yorkshire way...



# IoT ideas from beyond housing

Ian Hutton, Product Lead, Switchce

*IoT technologies are a great way to improve the overall connectivity of a property, making it easier for housing providers to gather and analyse typical household data. This data can then be used to identify risks or areas of inefficiency within a home, giving them the chance to implement effective repairs before the problem grows out of control, thereby reducing the likelihood of disrepair claims and reducing their long-term maintenance costs.*

Yet despite the numerous benefits of IoT technology, many housing providers are hesitant to invest and are looking at other sectors to assess the effectiveness of IoT technologies. So, what do other sectors do?

### Retail robots

Retail is one sector capitalising on the benefits of IoT technology. Companies such as Amazon have introduced these technologies into their warehouses, using connected robots to help package and move products with increasing efficiency and smart shelves to help ensure the stock levels are properly accounted for. The use of connected robotics has massively increased Amazon's ability to fulfil orders, with the robots able to carry 750lbs of products and move around the warehouse at a surprising speed and with far less room for human error.

### Agricultural yields

But retail isn't the only industry making use of IoT technologies; farming has been quick to reap the various benefits by using IoT sensors to collect and analyse environmental and hardware metrics. The use of IoT technology leads to a more data-based way of operating, giving farmers the ability to better understand the conditions of the land they're working.

This approach increases crop yields by reducing the margin for error, allowing farmers to maximise their profits while reducing waste. IoT technology can also monitor climate conditions and send alerts direct to farmers, providing them with a detailed forecast that can help in avoiding crop losses. The use of sensors can gather data on crop health, humidity, precipitation, temperature and many other

parameters, giving farmers the chance to immediately identify any deviations and take appropriate actions.

### Safer roads

IoT technology is changing how we live. This is particularly true of the automotive sector, which is where some of the biggest innovations are found. IoT technologies are being developed to help improve road safety, with devices on the market that can automatically detect collisions and contact emergency services.

The use of automotive IoT technology is largely used to reduce the risk of human error; technologies such as GPS can be used to track braking, idling and speeding habits – if a driver continues to exhibit poor decision-making, an alert can be sent to inform them of their errors.

### IoT in housing

How can these technologies help the social housing





sector? The main benefit of IoT technology is that it supports data-based decisions. This means housing providers can quickly identify high-risk properties in their portfolio and implement effective solutions before the problem can escalate.

Technologies such as smart thermostats, including those offered by Switchee, can monitor the internal conditions of a home such as temperature, humidity and motion, uploading it to a secure server that housing providers can access at any time. Through the use of IoT technology, devices such as Switchee's can learn the specific heating pattern of a property and act accordingly by automatically optimising conditions in the home to match the resident's needs. This can lead to savings of up to 17 per cent for

the resident, reducing the likelihood of energy waste and providing relief for residents on the poverty line who may be struggling to properly heat their home.

Research shows that connected technology has the potential to transform the housing sector by changing the way residents consume energy and heat their homes, making energy usage more consumer friendly and reducing fuel-related costs.

If the social housing sector continues to follow the example set by companies in other sectors, it too could reap the many benefits of IoT technology.

*Ian Hutton is a product lead at Switchee.*



## Loreburn Housing launches Futr AI chatbot

*Working with AI specialist Futr, Loreburn Housing has launched a chatbot designed to answer a range of tenants' questions, freeing the organisation's small customer-service team to spend time on more complex challenges.*

Sue Irving, director of housing services, Loreburn Housing, said, "Our focus is on delivering the best service to our tenants, but we don't have a huge budget to employ a large customer service team so we needed to find a way that could support both our tenants and our staff."

Working with Futr, Loreburn has developed a chatbot that sensitively and inclusively handles responses to a wide range of questions, supplementing its customer support team without causing any job losses. The chatbot sits on Loreburn Housing's website and answers incoming queries almost instantly, escalating the more complex enquiries to the housing provider's frontline team.

Irving said, "Futr's chatbot was quick and easy to set up, but most importantly the content is completely customisable and adaptable to our needs. We've been able to add a large number of questions and answers covering a significant proportion of tenants' common queries, and a range of more general questions to help other users of the website.

"The early response from tenants has been extremely encouraging. While we always want to provide a human voice when needed, many of our tenants just want to find the answer to their question as quickly as possible, and so they're happy to use the chatbot."



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Housing Technology On Demand is a dedicated hub for learning about the latest technologies in housing through interviews, discussions, event replays, demos and presentations from leading housing providers and technology suppliers.



### **IoT and AI with HomeLink (Aico)**

Housing Technology's CEO George Grant interviewed Chris Jones, CEO at HomeLink (Aico), to find out more about the HomeLink platform and the impact of AI and IoT in the sector.



### **In conversation with Crimson**

We chatted to Crimson's Ciara McMillan and Jordan Wheat about their solutions, their partnership with Platform Housing and the benefits of Microsoft Dynamics 365.



### **#HousingTechLive: Cybersecurity in housing 2022**

'Being a target is an unpleasant fact of life, being a victim is not'; Sophos explains how your organisation can continue its digital transformation momentum while staying protected using the latest solutions in 2022.



### **Talking data with IntoZetta**

Our CEO George Grant interviewed Dan Yarnold, co-founder and director at IntoZetta, about the importance of understanding data in the housing sector.



### **#HousingTechLive: Fire prevention in housing using IoT**

Housing providers are under pressure to improve fire safety for residents now more than ever before. FireAngel's Nick Rutter explores how housing providers can use IoT to identify those most at risk of a fire and prevent future incidents.



### **Interview with NEC**

We caught up with Roger Birkinshaw, executive director at NEC Software Solutions (formerly Northgate Public Services) about its recent rebrand after being acquired by NEC and its new apprenticeship scheme.

On Demand membership is free for housing providers; if you've not signed up yet, you can do so now at [ondemand.housing-technology.com](https://ondemand.housing-technology.com).



## Teign Housing appoints Cadcorp for cloud-based GIS

*Teign Housing has chosen Cadcorp for its cloud-based Cadcorp SIS geographic information system and associated training. SIS Desktop will be used for creating and preparing geographic information and SIS WebMap for sharing maps and business data across the intranet, internet and mobile devices.*

SIS WebMap includes Cadcorp Local Knowledge to return answers to questions about a locality, and ReportIT to allow users to report activities and incidents such as ASB or fly-tipping. Internal users of SIS WebMap can also capture and update grounds maintenance data via the web.

Tony Sharland, head of asset management and development, Teign Housing, said, "Safe and smarter digital technologies will allow us to improve our back-office functions, such as analysis and research about our tenants to better target services, with GIS and web mapping being a key part of this strategy."



### Torus moves to Cadcorp web mapping

Cadcorp has been chosen by Torus to replace its previous on-premise geographic information system with a web-based version alongside application management, support and training.

The housing provider was previously running two sets of GIS after merging with Liverpool Mutual Homes, but both versions were out-dated and lacked the necessary functionality and flexibility. Torus therefore decided to move to a cloud-based system with desktop GIS and web mapping, combined with integration with its core housing applications.

Torus opted for Cadcorp's SIS Desktop for the creation and preparation of geographic information and SIS WebMap for sharing maps and business data via the web and mobile devices. The contract also includes Cadcorp Local Knowledge for hyper-local information and ReportIT for tenants to report local incidents. SIS WebMap for Power BI will allow Torus staff to embed interactive Ordnance Survey maps into Microsoft Power BI to gain greater insight from their existing business datasets.

Torus uses GIS data to reveal a host of societal indicators and serves as an important tool in Torus's daily activities. The use of Cadcorp SIS will range from property boundary queries from housing officers, to mapping grounds maintenance responsibilities, aiding asset management, and helping improve its communities' outdoor environments.

David Gerwitz, asset planning and data manager, Torus, said, "GIS is fundamental to our operations. Delivering clear and accurate location intelligence is vital to our everyday decisions."



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#### GET IN TOUCH

*If you have any thoughts, experiences, news, case studies or advice on workplace wellbeing, we'd love to hear from you.*

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