

HOUSING TECHNOLOGY™

HOUSING | IT | TELECOMS | BUSINESS | ECOLOGY

HOUSING
TECHNOLOGY
2021

Digital conference

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HOUSING
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2021 | CONFERENCE AND
EXECUTIVE FORUM

Connected tenants, connected homes

*Aligning omni-channel
communications with
smart homes*

Housing management

Data democracies, business intelligence, analytics, RPA & digital optimisation

Finance management

Social value, IFRS accounting, arrears, asset management & online markets

Mobile working

Live streaming repairs, online diagnostics, in-house development

Customer management

Chatbot training, IT-enabled care, self-service & free tenant apps

Infrastructure

IoT, business continuity, mould bombs & fire-safety technology

General news

Housing's data challenge, GIS, lockdown strategies, recruitment & digital-first plans

Editor's welcome

November 2020

How do you solve a problem like data?

As little as five years ago, most housing providers would probably have cited tenants and properties portfolios as their most important and valuable assets. Skip forward to 2020 and most people would add 'data' to their most important priorities.

However, data on its own (particularly when stored in isolated spreadsheets and unconnected business applications) is largely useless; the value of data only becomes apparent when it can be used to generate business intelligence.

Most housing providers have been relatively late in their adoption of business intelligence and predictive analytics compared with other more commercial sectors such as financial services, supermarkets and online retailing.

This is due on the one hand to housing providers' not-for-profit status and corporate culture, and on the other hand due to the difficulty and cost of extracting meaningful (i.e. accurate and timely) data from their myriad legacy business applications and standalone spreadsheets on which to base any useful business intelligence.

However, in the past five years or so, there have been two important changes. The first is that housing providers have finally recognised the value of their property and asset, tenant, staff and financial data. The second change is that their IT infrastructures, business applications and corporate processes are now fully geared towards extracting that data and proactively using it for business intelligence.

With that in mind, we have just published the Housing Technology Guide to Business Intelligence and Analytics 2020, with support and contributions from Aareon UK, Adra Housing, BPHA, Community Housing Group, Islington & Shoreditch Housing, Peaks & Plains Housing and Sovereign Housing Group.

You can download your free copy from housing-technology.com/research, where you'll also find our full library of market intelligence reports covering all aspects of IT in social housing over the past decade.



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EDITOR
Alastair Tweedie
alastair@housing-technology.com
@housingtech

PUBLISHER
George Grant
george.grant@housing-technology.com
[housing-technology](https://housing-technology.com)

DESIGN & PRODUCTION
Jo Euston-Moore
design@housing-technology.com

EDITORIAL AND NEWS
news@housing-technology.com

RECRUITMENT
recruitment@housing-technology.com
jobs.housing-technology.com
@housingtechjobs

SUBSCRIPTIONS
Subscribe at: housing-technology.com or
email: subs@housing-technology.com

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Forthcoming events

Housing Technology 2021 Conference & Executive Forum

Digital Conference

03-04 MARCH 2021

housing-technology.com



Aico: Smarter Homes, Safer Communities

26 NOVEMBER & 10 DECEMBER 2020

Online webinar

aicoltd.eventbrite.com



Market intelligence

Housing Technology Guide to Business Intelligence & Analytics 2020

housing-technology.com/research

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Aligning omni-channel communications with smart homes

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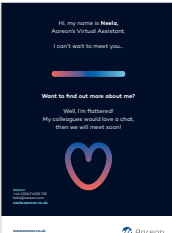
Please see housing-technology.com/showcase for more information

Aareon

Hi, my name is Neela, Aareon's Virtual Assistant. I can't wait to meet you.

Want to find out more about me?

Well, I'm Neela. My colleagues would love a chat, but we will meet soon!



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At a glance

- 24/7 customer support
- 24/7 customer support
- 24/7 customer support



aico

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FireAngel
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FireAngel CONNECTED

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Maximum Fire and CO protection for tenants and properties.



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Hi, my name is **Neela**,
Aareon's Virtual Assistant.

I can't wait to meet you...



Want to find out more about me?

Well, I'm flattered!
My colleagues would love a chat,
then we will meet soon!



Aareon
+44 (0)247 6323 723
hello@aareon.com
neela.aareon.co.uk

Sovereign Housing's BI plans with Civica and Microsoft

Sovereign Housing has chosen Civica for the delivery of its new Microsoft-based data warehouse as well as improved business intelligence capabilities.

Sovereign currently has numerous applications for its tenant services, making it difficult for the housing provider to gain insights from the data spread across those applications.

With the government's annual 'housing sector risk profile' highlighting a failure to manage data correctly as a key risk, the new platform is intended to act as a single location for extracting, loading and transforming the housing provider's previously disparate datasets, leading to more insight-driven analysis, better compliance and enhanced reporting.

Andrew Bradley, head of data and analytics, Sovereign Housing, said, "We're delighted to have appointed Civica as a trusted partner for the delivery of our new business intelligence platform. As part of Sovereign's corporate plan, we've recognised that we can leverage data and analytics to drive improved customer service and increase operational efficiency.

"Working with the experts at Civica, we'll be leveraging Microsoft's data warehouse technologies and BI tools to transform how we understand our customers and homes."



Raven Housing signs iProperty Cloud for digital transformation

Techlabs London has signed a three-year partnership with Raven Housing Trust to implement its full iProperty Cloud suite for housing CRM.

As part of a new agile digital transformation programme covering all areas from tenancy management to property repairs, the partnership will give the housing provider access to the broad range of capabilities of Microsoft's Dynamics Power Platform alongside Techlabs' own pre-built, housing-specific Dynamics modules and apps.

Techlabs London is a Microsoft Dynamics Premium ISV and has also recently joined Microsoft's invitation-only partner advisory council, giving Techlabs the ability to influence Microsoft's future planning for its business applications.

Julia Mixer, director of transformation, Raven Housing Trust, said, "We chose Techlabs as our Microsoft Dynamics partner because of its iProperty Cloud product, collaborative approach, housing expertise, its ambition for innovation and its access to Microsoft's new product development plans.

"Raven is an ambitious organisation – we want to impress our customers every time and stay ahead, making the most effective use of innovative technology to achieve that. We needed a partner up to the challenge to match our ambition and we found that with Techlabs."

Matthew Hedges, iProperty Cloud's product lead, Techlabs London, said, "Partnerships like this are what we live for at Techlabs. The team at Raven is a fantastic group of people who really want to make a difference to their customers' lives.

"We know our solutions can be transformative for housing providers wanting to innovate in otherwise difficult times, but good technology needs good people to continually evolve it, which is why we're very excited to be working with the amazing team at Raven Housing."

Housing Technology 2021 goes digital...

**HOUSING
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2021 | CONFERENCE AND
EXECUTIVE FORUM

After 12 successful years of the physical incarnation of our annual conference and executive forum, the Housing Technology 2021 event will be 100 per cent digital, taking place on 03-04 March 2021 on our superb new enterprise-grade digital event hub (not Zoom or Teams...).

Rest assured, Housing Technology 2021's new digital format provides all the benefits you would get with a physical event and following the success of Resilient Innovation 2020, our first fully digital event in September, we are planning on hosting an even bigger and more dynamic digital event with Housing Technology 2021.

Limited number of tickets...

Delegate tickets for Housing Technology 2021 are on sale now from housing-technology.com, with 400 tickets available on a first-come, first-served basis. Registration will close once those 400 tickets have been taken, so please book your place now to avoid disappointment.

Why you should register

- Join your peers at the leading and longest-running IT event in housing
- Watch sessions on innovation and key trends from housing experts and your peers
- Learn about new strategies and solutions that you can implement at your own organisation
- Gather business intelligence on the latest developments and solutions
- Spark new ideas and network with your peers online
- Break out of your routine and get a fresh perspective
- Gain access to all the recordings after the event
- Join us from the comfort of your office or home - no travelling time required

Perfectly targeted themes for 2021

Housing Technology 2021's IT- and business-led presentations, hosted via our digital event hub, will focus on:



- **Business resilience:** Operational risk management & maintaining 'business as usual'.
- **Planning for innovation:** Creating a fertile environment for innovation.
- **Data-centric operations:** Gaining actionable information on tenants, properties, assets & business operations.
- **Beyond housing:** What can we learn from other sectors?
- **Doing it yourself:** Balancing in-house development with external expertise.
- **Digital transformation 2.0:** What's next for organisation-wide business & IT change programmes?
- **IT leadership:** The changing IT leadership roles of CxOs in housing.
- **Solid foundations:** Making the most of your core business applications.
- **Refreshing your IT infrastructure:** How can you stay one step ahead?
- **What's next?** The brightest, most exciting technologies to be considering.



First tranche of confirmed presentations for Housing Technology 2021



Accord Housing: Digital optimisation, metadata management and gamification



Midland Heart: Innovation, leadership, in-house development and business intelligence



Active Housing: The future of self-service diagnostic reporting (exact title tbc)



Mobysoft: Reduced arrears with predictive case management (exact title tbc)



Aico & HomeLink: How will IoT transform your customer relationships?



Paradigm Housing: Digital transformation – before, during and after the pandemic



Fireangel: Fire-safety technology in housing (exact title tbc)



Peabody: Introducing microservice aggregation for business agility



Grand Union Housing: Data lakes, Dynamics/SharePoint and robotic process automation



Platform Housing: How to avoid data fatigue in an IoT world



Guinness Housing: Topic to be confirmed



Rooftop Housing: How not to implement a new IT system...



Halton Housing: Innovation in housing – what are the right ingredients?



Royal Borough of Kensington & Chelsea: What does IT leadership look like?



Havebury Housing: An appetite for construction – Havebury's in-house development



Southside Housing: Digital inclusion – don't leave anyone behind



Johnnie Johnson Housing: Remote working and agile teams in housing



Sovereign Housing: The power of a 360-degree view of business intelligence



Lioness Recruitment: IT talent management in housing (exact title tbc)



TSG: "I'm on premise...get me out of here!"



Manningham Housing: Driving innovation - Short-term costs vs. long-term benefits



Wrekin Group: Grow your own...balancing in-house development with best-of-breed 3rd-party software



MHS Homes: Connecting customers and digitalising the business



Yorkshire Housing: Digital transformation 2.0 with Dynamics 365

Interested in taking part?

If you are interested in taking part in Housing Technology 2021, please contact Alastair Tweedie (speaker enquiries – alastair@housing-technology.com) or George Grant (sponsor & exhibitor enquiries – george.grant@housing-technology.com) for further information.

100 per cent digital at Qlinker



Marcel Vogel, Lead Architect, Qlinker (Netherlands)

Around three years ago, Qlinker was presented as the first digital housing provider in The Netherlands, with the experience of 100 years of social housing, yet also without the restrictions of 100 years of social housing. Qlinker's lead architect, Marcel Vogel, explains the out-of-the-box thinking and innovation behind Qlinker and the successful letting of its first 136 properties.

While 'traditional' housing providers have been busy digitising their business operations in recent years, this idea is in the actual DNA of Qlinker. After all, automating processes and working methods is much easier when you're starting from scratch, especially when you compare it with an existing housing provider – that's also one of the reasons that Qlinker was founded. Of course, we still have to deal with the same laws and regulations, which means that some things haven't yet been successful, such as fully automating accountants' files.

Out-of-the-box

Starting a housing provider from scratch means that major innovative steps can be taken to increase customer satisfaction. For example, tenants can use the Qlinker app to carry out the entire process from searching for a home to signing a lease on their smartphone. We think out-of-the-box as much as possible, focusing on the tenant in everything. After all, it's their process, not ours. For example, available homes are posted on the site of the regional housing allocation system, but the tenant searches and finds the homes via the Qlinker app.

My team and I are responsible for all of Qlinker's process design and we aim to really do things differently where possible. For example, when we deliver a new home,

the whole process is completely digital. We also make delivery videos and a digital housing guide in order to make the handover of the keys a festive, personal moment.

Rental passport

Another example is the delivery of documents, something that customers can do entirely via our Rental Passport. As a result, the tenant doesn't have to come to our offices. If everything goes well, the new tenant can complete all of the tenancy and moving-in formalities within 10 minutes.

To support our digital processes, Qlinker uses the ISRES Data Roundabout. This handles the data traffic between all of the underlying applications. We are also looking at how we can add new innovations such as a process engine and business rule engine next to the Data Roundabout in order to increase the efficiency of Qlinker. The aim behind these 'engines' is to achieve 'straight-through processing', almost totally removing the need for human intervention.

Data exchange

Unlike some other technologically-advanced housing providers, we have deliberately chosen not to use robotic-process automation (RPA) – in our view, RPA is a means of dealing with application imperfections, whereas we want to use applications where the data exchange takes place using APIs, making the use of RPA redundant.

Valuable experience





We have now rented out our first 136 properties – this has given us some valuable experience. In the next stage of Qlinker's evolution, we will be adding that experience to the improvements suggested by our tenants, 'under-the-hood' upgrades and expanding our tenant experience via the Qlinker app – after all, being 100 per cent digital means that Qlinker can easily focus on continually improving all aspects of our service without being held back by any 'legacy' analogue processes.

Marcel Vogel is the lead architect of Qlinker (The Netherlands).

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-  Future-proof properties with a hybrid system that can be upgraded at any time



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50M Over 50 million alarms sold worldwide **100+** Registered technology patents **UK** based Research and Development team

* Calculations based on smoke and heat alarms

Ealing Council's massive IoT plans with FireAngel

The London Borough of Ealing is currently undertaking a large regeneration programme to transform many of its properties and estates and as part of its plans, the council is implementing one of the biggest IoT roll-outs of its kind by a UK social housing provider through the installation of FireAngel's Spec Connected products and services across its entire housing portfolio.



The new agreement will revolutionise the way in which the council monitors and manages its housing stock, eliminating the requirement to gain physical access to its properties due to all of the required IoT device data being transmitted wirelessly in real time via a secure cloud network.

After a review of Ealing Council's fire safety policy, it was decided that a fire safety system that provided transparent and continuous monitoring of each alarm in every property would enable the council to increase the level of protection provided while simultaneously streamlining maintenance processes to quickly identify any risks. Following the review and an initial trial, FireAngel Spec Connected was chosen due to its significant purchase savings and reduction of running costs through the provision of connected solutions that could be adapted and upgraded later to meet future regulations.

Paul Cook, interim health and safety manager, Ealing Council, said, "IoT is an area that will continue to evolve and I was really impressed with FireAngel's investment in its connected technologies. By partnering with FireAngel we're confident we will not only provide our tenants with the highest standards in fire protection, but also streamline our asset management processes."

The council's entire housing portfolio will benefit from the new connected system, with real-time remote monitoring of each property via a secure wireless network. FireAngel Predict will also be installed to highlight trends and monitor patterns of behaviour to prompt early interventions before an actual fire.

The installation of over 122,000 of FireAngel's battery-powered Specification Range smoke, heat and carbon monoxide (CO) alarms is now underway.

The alarms are being supplied by CEF through a Procurement for Housing framework, and because the alarms are battery-powered, no hardwiring is required, providing significant cost savings while also reducing the length of time in which the installers are in each tenant's home.

Every property in Ealing Council's housing portfolio historically specified an LD3 category mains-powered system from another supplier. The new partnership will see the level of protection throughout each property upgraded to an LD1 category specification in accordance with BS 5839-6.

The council's suite of alarms will also be enhanced by a FireAngel Connected Gateway; these will be fitted outside each property to provide the council with additional real-time updates regarding the status and performance of each alarm.

Cook said, "This is a significant project for us, but one that is necessary to transform the way in which we manage and monitor not only our entire housing stock but also the safety of every tenant."

The FireAngel Connected Gateway uses a unique algorithm and features patented Predict technology to identify and highlight high-risk patterns of behaviour regarding fire safety and then instantly alerting nominated individuals in the event of an alarm.



James King, director of connected homes, FireAngel, said, "There has been a real shift in behaviour and circumstance due to coronavirus and housing providers are under increasing pressure, specifically with regard to fire safety.

"From challenges around gaining access to properties through to overcoming issues regarding the adequate measurement of property risk, there are a number of complications and costs associated with missed tenant appointments and the difficulty engineers experience when trying to gain access to properties to conduct necessary maintenance and repairs.

"This is why connected technologies that support remote monitoring capabilities are so important, because they enable housing providers such as Ealing Council to continuously monitor each of the fire and carbon-monoxide safety devices across their stock via a central, secure cloud-based system."



Connected communities –

Reducing fire risk for vulnerable tenants

James King, Connected Homes Director, FireAngel Safety Technology



Maintaining social housing and providing meaningful support to tenants is full of challenges. Fire safety is one of the most important, but it can be one of the most difficult to overcome. FireAngel's connected homes director, James King, discusses how, with the right technologies, fire prevention and response can become easier, more effective and more proactive.

The fire risk in social housing

Last year, fire and rescue services attended almost 30,000 house fires in England alone. 26 per cent of those were in purpose-built flats, with 775 fires in high rises over 10 storeys, putting hundreds of people at potential risk.

With 67 per cent of house fires caused by human error, proactive intervention is vital to help tenants protect themselves, but their environments have a role to play too. Recent research has shown that more than 70 per cent of social housing high-rise schemes have fire safety issues, such as the wrong type of fire doors or a lack of sprinklers. To keep people safe in social housing, something needs to change.

In the aftermath of the Grenfell Tower fire in 2017, all eyes were on how fire safety could be improved in high-rise buildings. In many areas, progress has been slow, but there's renewed focus on managing fire risk for tenants and communities as the inquiry continues.

From the government down, there's ongoing investment in fire prevention and response infrastructure for social housing. But it's becoming increasingly clear that success

will require new approaches to how housing providers monitor and manage fire risk in their buildings.

Understanding your communities and reducing their risk

Providing meaningful support for communities is vital for the health and wellbeing of tenants, and safety is a major component of that.

Vulnerable individuals may be more likely to leave a pan on the stove, for example, or use an electric heater for long periods of time, increasing their risk further. Understanding why particular tenants are at greater risk can help housing providers prevent fire-related emergencies.

To make this process simpler and less obtrusive for tenants, housing providers need accurate digital methods to monitor their building's various risk profiles and target interventions.

Introducing IoT and AI for better-connected fire prevention

Preventing fires, and responding to them effectively when they do happen, is a round-the-clock task.

Post-Grenfell, more than 400 'waking watches' were established around the country to monitor buildings. However, they're expensive and only designed to work as an interim measure; relying on humans for fire prevention shouldn't be the only intervention and it certainly isn't sustainable long term.

By introducing technologies such as the internet of things (IoT) and artificial intelligence, housing providers can not only relieve some of the burden of fire prevention from their employees, they can also make life safer and easier for their tenants.

This combination of technologies provides 24/7 oversight of buildings and their changing fire risks, collecting data that can be analysed for trends and patterns, such as if a particular tenant repeatedly sets off their smoke alarm. AI



can even offer predictive analysis based on these trends, which gets more accurate the more data it processes. FireAngel Predict automates this process, highlighting who needs more support to help housing providers engage directly with their at-risk tenants, encouraging independent living and proactive intervention.

IoT sensors that are remotely connected to a central base of operations enable housing providers to complete routine maintenance checks without needing physical entry to properties due to sensors being able to self-report on their condition.

This cloud connectivity is instrumental for streamlining fire prevention on the housing provider's side, too. It creates an opportunity for centralised, off-site monitoring so that multiple sites can be managed from a single place.

Housing providers and local councils are starting to embrace the IoT opportunity and see the positive impact it can have on their communities. For example, Ealing Council is in the process of rolling out FireAngel Connected across 17,000 of its properties, making it one of the first housing providers of its size to make the transition to connected technologies.

Ealing Council's interim health and safety manager, Paul Cook, said, "This will transform the way we manage and monitor not only our entire housing stock, but also the safety of every tenant living in each of our properties."

Finding the right technologies for social housing

Of course, not all technologies are created equal; there are a lot of boxes to tick for social housing, and housing providers will need to make intelligent, informed decisions about which solutions they choose.

Here are a few things housing providers should consider:

- **Compliant:** As the government continues to publish new regulations and guidance, solutions need to meet compliance requirements and adapt to changing legislation.

- **Cost-effective:** Solutions with budget-friendly installation and manageable ongoing costs allow vital resources to be redirected to high-priority tasks such as replacing cladding, fire breaks and fire doors.
- **Streamlined:** New solutions mustn't add to the workloads of housing providers' staff; technology needs to make things simpler and faster to be worthwhile.
- **Data-led:** Systems must contribute to a single source of truth; a golden thread that can support a clear audit trail and highlight risks.

FireAngel Connected is a purpose-built cloud and IoT-based solution that covers all these requirements, with a futureproof model that we're constantly updating and refining to help housing providers and their tenants monitor and mitigate fire risks throughout their properties. With the automated capabilities of FireAngel Predict built in, it helps to create the reliable, accurate insight housing providers need to protect their tenants, while maintaining a manageable and secure audit trail of data for each dwelling.

Social responsibility, safety, and community

We're at a stage where technology can shoulder some of the responsibility of fire safety, and it's time for housing providers to use that opportunity to protect their tenants and their homes more effectively.

With IoT and AI, housing providers can help their communities take a proactive role in their own safety, with 24/7 visibility and clear intervention opportunities that provide peace of mind to tenants and support staff alike.

At FireAngel, we're channelling our years of industry-leading expertise and working partnerships into connected, data-driven solutions to support ongoing fire prevention and response.

Together we can overcome some of the biggest and most complex safety challenges facing social housing providers and their tenants – it just takes the right technology.

James King is the connected homes director at FireAngel Safety Technology.



The road to robotic process automation at Flagship

Yogesh Gohil, Head of Technology, Flagship Group

In 2019, Flagship Group began exploring robotic process automation (RPA) as a way of improving business processes. Flagship's head of technology, Yogesh Gohil, takes us through the motivations, challenges and all-important results of this innovation journey.

Beginning the journey

We approached RPA as part of a wider initiative to become a future-ready employer. In simple terms, this means moving towards machines doing work rather than people. Companies will still need talented employees, but they will take more of a role in designing products and processes which machines will then carry out.

As part of the first step of this journey, we did some groundwork and quickly identified that there were lots of processes in our organisation suitable for automation via RPA. These were mostly high-level, repetitive processes that we knew could add value because they took up a lot of staff time which could otherwise be better spent elsewhere.

Partners in automation

Working with our automation partner, Human+, we chose our first process for automation. Perhaps unusually (and I wouldn't necessarily recommend doing this!), we decided to design, build and automate an entirely new process from scratch, rather than automating an existing process. This was an asset liability register – an extremely complicated process involving collecting and centralising data from multiple different locations – which we

desperately needed from a compliance perspective.

With the help of Human+, we really nailed down what the process entailed. This was crucial to making sure we understood all aspects of the process and that the automation would be successful. If you'd like to find out more about what it means to work with an automation partner, read about our automation story in Human+'s intelligent automation guide (human-plus.co.uk/housing); it's a great way of getting started with RPA because it sets out what you can expect and there are lots of things you'll be able to learn from our experience.

An in-house future

From the outset, we understood that RPA wouldn't be a silver bullet for us. But, like most housing providers, we have a lot of legacy systems that automation can help us join together, saving us time, and making everyone's lives a whole lot easier.

For example, with our asset liability register we don't know how long it would have taken us to create manually, but it would probably have required around five or six employees to do it full time. That's just the initial setting up of the technology and doesn't include all the updates that are needed from time to time, so automation was definitely a worthwhile choice.

In fact, our initial foray into RPA was so successful that we generated a lot of enthusiasm for further automation projects, with many of our employees wanting to become involved in RPA in some way. This was very positive but we also realised that it was a big ask for our people alongside their full-time roles. We therefore devised a framework for our in-house RPA projects to make this easier.

The framework is a template that sets out the necessary criteria for what a potential RPA project should look like



within Flagship. Teams from all areas of the business can use it to propose a process to be considered for automation. Each quarter, I'll report back to our executive team on the projects we've completed, those that are underway and the ones we are considering, complete with the expected returns on our investment.

Paying its way

One of the most important features on this list is demonstrable value for money from automating the chosen process. Automation isn't cheap but if it's done the right way, it definitely pays for itself (sometimes within a matter of weeks). Thanks to the results of our asset liability project, this is something our internal stakeholders now understand really well, and there's a big drive within our organisation for this kind of initiative.

Other aspects of the framework include demonstrating that the process is really well understood by the team in question and their firm commitment to delivering the RPA project as a whole. Doing things this way puts the responsibility for RPA on the business area, rather than on IT.

Our role as an IT team is to support the business teams' objectives, so it's best to put the onus for RPA projects on the business teams themselves. Having said that, this does require a fair bit of effort which is why you still might want to bring in an external partner to help.

Looking ahead

We've looked at so many different processes that we could automate but there are still lots more to consider. We want to do something with our finance team next, most likely within invoice reconciliation, which is a very manual, repetitive process at the moment, so RPA can definitely help there. There are also lots of little processes within the organisation that wouldn't give you as big a win but are still worth automating.

After that? We see RPA as the first step on our automation journey. We now want to explore intelligent RPA, which introduces artificial intelligence and machine learning to expand the capabilities of RPA.

RPA tips for housing

My top tips for RPA in your organisation:

- **Find the right partner** – Working with a partner will help you to understand your business better and the processes being automated. This will save you lots of time and ensure the automated process actually does everything it needs to do.
- **Use the same technology** – Don't chop and change between different RPA technologies. This could leave you in a position where you have multiple technologies being supported by multiple suppliers across the organisation, leading to a far more complicated change management process.
- **Get stakeholders on board** – Internal buy-in across business teams and senior leadership is essential. To achieve this, you'll need to be clear on the expected RoI and likely business impact.
- **Create a framework for internal RPA projects** – With the right framework and roadmap, much of the groundwork will already be done. This will really help your IT teams as well as when making the case for RPA to your board.

Yogesh Gohil is the head of technology at Flagship Group.

Democratising information and knowledge



Jon Cocker, Chief Information Officer, Platform Housing Group

The internet of things is going to begin providing huge amounts of data about our assets and customers, but how do we prevent data fatigue and turn this torrent of data into actionable business outcomes?

What do you mean by 'democratising information and knowledge'?

In my experience, access to data has traditionally been in the realm of IT or business intelligence teams who sometimes act as gatekeepers, fiercely guarding the secrets within. The 'democratisation of data' is a mindset that begins to allow access to data at all levels of the business so that easily accessible insights are available for decision-making by everyone. Many organisations aspire to have a data-driven business, but don't give their staff the tools to actually achieve this.

How are most housing providers using data at the moment, and what are the problems with that?

Most providers are really good at saying what happened yesterday but not many can really answer the 'why' questions or predict what will happen tomorrow, so we end up with all the focus on the KPIs but not what the data can tell us about customer behaviours and which processes aren't effective.

That seems to be a massive waste because we all collect millions of lines of data every day and can follow a customer's journey from initiation to resolution, but this is very rarely used in activities such as root-cause analysis of complaints or where a service problem has occurred.

How can housing providers deal with the mass of data spread across siloed business applications and spreadsheets?

The obvious answer to that is for housing providers to rationalise their applications and reduce the number

of potential data sources. Although that isn't always a practical solution for most housing providers, what we can all do is start understanding why our core applications are not providing the information colleagues need to do their jobs effectively, thereby forcing them to find new solutions themselves; siloed data is a symptom of a wider issue, not the problem itself.

We need to create more collaborative corporate cultures where these issues are highlighted, taken seriously and dealt with. I consider every business-critical spreadsheet as a business process or application failure. Furthermore, housing mergers usually exacerbate these data issues because data consolidation isn't usually at the forefront of people's minds during the planning stage of mergers.

How does data transition from being a local (or task-specific) phenomenon to becoming a strategic, operation-wide asset?

We need to start making data quality more visible, at both executive and board levels. There are a number of complementary ways of achieving this, but initially good data quality must be integral to the overall business strategy. For that to happen, we need to highlight the actual cost to the business that poor data causes, whether that's through missing contact details for a customer or making business decisions based on incomplete, incorrect or downright misleading information.

I also think it's important to define a clear data and analytics strategy for the organisation that will set the stall out for the stewardship of information and put in clear controls to ensure data quality. Finally, define the metrics and parameters for data quality, but make them have real business impact not just numbers – 'data storytelling' is a good model for this.

What are the next 'data intensive' technologies and how do they help housing providers?

IoT and smart homes will bring in reams of information, but we need to be careful not to get overwhelmed with it all and lose sight of the things that actually add value.



As a starting point, it's important to focus on the business outcomes you want and go from there.

The real opportunity is around 'automated responsivity' – using your data to automatically trigger calls to action within your business operations, such as a lack of movement scheduling a welfare visit or humidity levels scheduling a phone call from a housing officer.

However, I think a big mistake would be expecting housing staff to react to alerts on top of their existing day jobs – that's a recipe for things getting missed.

Why and how should housing providers protect their data?

Customers entrust us with some of the most personal information that there is, such as their medical conditions or income. Apart from the legal implications, we have a moral duty to make sure that data is safe.

This starts and ends with the culture of your organisation. You can have all the technology you like, but you need engaged and knowledgeable staff who can act as your eyes and ears. Most statistics indicate that over 90 per cent of successful cyberattacks begin with human error, yet this seems to be the one area that many organisations ignore and put complete trust in their IT defence solutions.

One of the other big questions is: can you say with absolutely certainty what data your organisation regularly shares with third parties and whether this is done securely (i.e. with suitable privacy impact assessments and data-sharing agreements)?

How does data change the customer experience?

The main goal of housing providers is to deliver a great customer experience, and we can learn lessons from organisations that do that really well.

Our customers live in a 24-hour world and transact with organisations such as Amazon and Uber on a daily basis. As people move into our properties for the first time, they will expect their housing provider to offer equally fast, tailored services.

Data is the only way that we can do that. Knowing a customer's preferred contact method is a simple and obvious example, but the real benefit is when we move into customer behaviour analysis where we can see how different segments of customers interact with us and then begin tailoring content that is meaningful and useful to them via a communication channel they prefer.

Can you give us five tips for housing providers to transform their data operations?

- Invest in a data and analytics strategy – have clear stewardship of your information and plan for how you are going to manage and use it.
- Communicate with senior colleagues on the value of good data – make it real and show how it will help them provide a better service.
- Find your business-critical spreadsheets and transfer them to your core systems before the creator leaves your organisation.
- Open up your data for everyone to access, at the same time as having a clear framework detailing who it is shared with and how.
- Train your business users on cyber security and use them as your first line of defence.

Jon Cocker is the chief information officer at Platform Housing Group.



Power up your processes with Power Apps

Kirsty Marsden, Senior Service Design Lead, and Tony Hughes, Microsoft Solution Strategist, TSG

TSG was recently joined by three of its housing customers – CHP, Loreburn Housing and Selwood Housing – for a webinar in which they showcased their Microsoft Power Apps projects across multiple use-cases, demonstrating the versatility of the technology.

Loreburn health and safety app

When reviewing its app-development options, Loreburn Housing initially considered off-the-shelf solutions but these turned out to be too complicated, with much more functionality than Loreburn needed. The ongoing licence fees for those products also impacted the selection process, with Loreburn Housing ultimately selecting Power Apps due to its ability to provide a more tailored and effective solution which aligned with its existing IT environment.

After scoping and implementation, Loreburn Housing now has both a tablet- and mobile-based health and safety app, complete with a reporting dashboard showing live reports and actions.

Carole Garner, health, safety and environment coordinator, Loreburn Housing, said, "The previous process took far too long, it didn't give us the accessibility needed for staff in the field and it was difficult to track the actions that were being raised. We were looking for something that was easier to report adverse events, but also allowed us to more easily manage the data and actions from those events."

Since the launch of the app, Loreburn's staff have found the report submission process much easier to complete. Garner said, "We've had a lot of positive feedback about how much easier it is to submit a report. It's made the management of our actions so much better."

Selwood's person-centred risk assessment app

Selwood Housing recently established a new 'supported living' team to provide more targeted support to vulnerable tenants, which came with new requirements for 'person-centred risk assessments'. After discussing its requirements with us, Selwood decided it would adopt a

'knowledge transfer' approach to the project.

Mark Heyworth, group head of ICT, Selwood Housing, said, "While TSG built the app, they took our team through the development process at the same time so that we could pick up the skills we'd need to build the next app as well as maintain and support this one."

The final Power App solution integrates with Selwood's housing management system to create assessments and intuitively searches for a current list of cases due, pulling these through to the home screen of the app to be actioned.

The app is dynamic by nature, with a list of hazards and questions housed within collection tables in SharePoint that can be edited when needed to update the application in real time. The SharePoint lists also allow for multiple levels of conditional functionality to be used in the hazards section, creating a smooth and easy to follow input process.

The team at Selwood Housing has learnt a lot along the way and new processes have been created as a result of their learning and development on the Power Apps platform, with Joe Kenny, Selwood Housing's ICT applications and solutions analyst, having already gone on to develop a desk-booking app to support the housing provider's coronavirus policies.

CHP's neighbourhoods app

CHP was originally looking for ways to extract more insights from its existing housing management system, in particular for CHP's staff when they are out and about.

Speed was the driving force behind CHP's choice of Power Apps, with the platform allowing for faster and more flexible development than its existing housing



management system, aligned with CHP's 'Microsoft-first' approach to IT.

Currently in development, the app will allow members of staff to select the neighbourhood they are visiting and access live information on the current activity. This will include the number of local customers, employees working in the area and repairs to be completed.

Richard Hawkes, digital services development manager, CHP, said, "It was quicker than we expected to develop an app when you're working with a partner. We've gone from nothing to a full app in just a few weeks of development.

"The app is very much a framework that we're going to expand on in future, such as integrating a web service that will automatically update the housing management

system, rather than people having to do this manually. "We've also learnt more about the Microsoft Power Platform as a whole in terms of Power Apps and Power Automate and how well the two go together. We're already considering how we can use those along with cognitive services for things like improving invoice flows."

Kirsty Marsden is a senior service design lead and Tony Hughes is a Microsoft solution strategist at TSG. Our thanks to Carole Garner (Loreburn Housing), Richard Hawkes (CHP), and Mark Heyworth and Joe Kenny (both Selwood Housing) for their contributions to this article.

Housing Technology Guide to Business Intelligence & Analytics 2020

– Get your copy today



Try this little thought experiment – place the four entities of properties, tenants, staff and data in descending order of importance... We're pretty confident that you'll have put 'data' in either the first or second position, yet only five years ago, it would almost certainly have been last in that list for most people.

With that in mind, we have just published the Housing Technology Guide to Business Intelligence 2020, with support from Aareon alongside Adra Housing, BPHA, Community Housing, Islington & Shoreditch Housing, Peaks & Plains Housing and Sovereign Housing. You can download your free copy from housing-technology.com/research.

The contents of the Housing Technology Guide to Business Intelligence include:

- The new 'datavores'
- From monthly reports to real-time business intelligence
- The 'then and now' of BI and analytics
- Are business analysts under-appreciated?

- Data, insights, action...
- Laying the right business intelligence foundations
- Using data and intelligence to support your tenants better
- Automatic Power BI reports with an on-premise data gateway
- Data-driven decision making... Does anyone actually believe in it?

You can order your complimentary copy of the Housing Technology Guide to Business Intelligence 2020 from housing-technology.com/research as well as our entire archive of market intelligence reports and guides.



Social value – Lip service or lasting legacies?

Chris Cliffe, Director, CJC Procurement

In September's incredible new-look edition of Housing Technology, social value cropped up several times. We read about 'greening your IT procurement' from Anthony Collins Solicitors which included a reminder that social value also needs consideration in our sector's procurement processes. We read how Civica will be planting trees and helping with park restoration following winning a contract with Harrow Council. We also read how Hyperoptic can demonstrate the social value of hyperfast broadband through its collaboratively-produced social value calculator.

Procurement Policy Note 06/20

Coincidentally, September also saw the publication by the government's cabinet office of a Procurement Policy Note (PPN) on taking account of social value in the award of contracts. While this PPN applies from January 2021 across central government, its detail and the associated e-learning for civil servants are also instructive for the housing sector.

The PPN puts flesh on the bones of the existing requirement of the housing sector to consider social value in its procurement activities. It is drafted in full recognition of the current economic context of the global pandemic too. It reminds us that supplier diversity is key to a healthy marketplace and that public sector procurement policy is to increase spend with SMEs, charities, social enterprises and mutuals.

A greater focus on social value is fundamental to developing good, modern commercial strategies which many executives across the sector's boardrooms are focusing on.

How far could this go?

Since 2018, central government has been mandated to include (not just consider) social value in its procurement activity. All departments are required to report on the

social impact of their procurements and specific training is being delivered to departmental procurement teams.

The clear objective is for social value to be embedded throughout the procurement cycle, from business case to commercial strategy and from market engagement to contract management. Value for money (VFM) is clearly the focus of activity, and the point is that today, VFM absolutely includes the social value of contracts.

While not mandated in the wider public and/or housing sectors, surely this is just as much a good idea in housing, ahead of any future pressure from the regulator. After all, this is a regulator which requires housing providers to deliver VFM through ensuring "that optimal benefit is derived from resources and assets and optimise economy, efficiency and effectiveness in the delivery of their strategic objectives".

Consistent approach

The PPN signposts a consistent approach to applying social value in procurement by government. A simple model has been developed in an effort to bring everyone up to a minimum operating level and make it easier and more consistent for suppliers to tender.

The model is built around the following list of themes and outcomes considered important for public procurement and commercial activities, and they have been designed to integrate rather than override existing procurement policies. The five social value themes and eight associated outcomes are:

- 1. Covid-19 recovery:** Help local communities to manage and recover from the impact of coronavirus;
- 2. Tackling economic inequality:** Create new businesses, new jobs and new skills; and increase supply-chain resilience and capacity;
- 3. Fighting climate change:** Effective stewardship of the environment;
- 4. Equal opportunities:** Reduce the disability employment gap; and tackle workforce inequality;
- 5. Wellbeing:** Improve health and wellbeing; and improve community integration.

How the social value model works

The expectation is that for any public procurement, you choose the outcomes most suited to the subject matter of the contract and to that supply market. You then include questions specifically addressing those outcomes within the tender while noting that for central government a minimum weighting of 10 per cent is to be applied for social value in the evaluation criteria! And don't forget to add the tangible deliverables to the resulting contract and

measure the outcomes during contract management. In recognising that this is easy to write but hard to implement in a sector which typically undervalues procurement, the onus shifts to programme and project managers to seek out commercial advice to deliver this. Therefore, reflect on how a positive legacy can be achieved through the delivery of the programme or project you are running.

How serious are you about serving communities?

For a sector which outwardly puts its communities at the heart of its operations, taking social value seriously in procurement surely shouldn't need central government to take the lead, but perhaps this new PPN does at least provide a springboard for the sector to voluntarily raise its game on this key issue and show central government how it's done.

For suppliers to the sector, I would urge you to get familiar with these themes and outcomes and begin to pre-empt questions in these areas. Start to proactively build your responses and track records in these areas so that you stand a good chance of maximising your chances of winning contracts in future.

Chris Cliffe is a director of CJC Procurement.



Rugby Council invests in RentSense

Rugby Borough Council has bought Mobysoft's RentSense software to reduce its arrears cases and support vulnerable tenants.

Before the pandemic, the council was implementing a new housing management system, but it was concerned that welfare reform and staffing constraints would impact its ability to collect rent and support tenants, prompting its investment in the new software.

Raj Chand, head of communities and homes, Rugby Borough Council, said, "RentSense will give us the intelligence to target our arrears cases better and provide efficiencies compared to the FTE staffing levels we would need to effectively case-manage debt.

"Before opting for this solution, the other housing providers we spoke to all said that their arrears had reduced significantly following their use of RentSense."

"We spoke to contacts at other Scottish housing providers using RentSense. They told us how the software had led to reduced arrears, giving us the confidence that we were making the right choice for Trust Housing."

"We spoke to contacts at other Scottish housing providers using RentSense. They told us how RentSense had led to reduced arrears, giving us the confidence that we were making the right choice for Trust Housing."



**CYNGOR SIR
YNYS MÔN
ISLE OF ANGLESEY
COUNTY COUNCIL**



Trust Housing chooses RentSense

Trust Housing has bought RentSense to help reduce its arrears, maximise rental income and keep its tenants out of debt.

Prior to the pandemic, the housing provider wanted to support tenants in the early stages of arrears but its income staff were struggling to get an accurate caseload from its housing management system.

Lorraine Fitzsimons, housing operations manager, Trust Housing, said, "The team were facing reporting challenges, especially around early interventions, and ensuring that we could target the right arrears cases first led to us looking at some specific software to achieve those objectives.

Isle of Anglesey signs up with Mobysoft

Isle of Anglesey County Council has selected Mobysoft's RentSense to help it with welfare reform and tackle the effects of coronavirus on its arrears.

The council's rent team was already dealing with the impact of universal credit before the start of the first UK lockdown, and it was aware that many of its peers in North Wales, including Flintshire and Denbighshire councils, were already using RentSense with good results.

Ned Michael, head of housing services, Isle of Anglesey County Council, said, "We were looking for ways to improve our collection rates, reduce arrears, mitigate the impact of welfare reform and increase efficiencies within our housing department.

"We spoke to Flintshire County Council – the users' opinions were very positive about the software, and it was evident that the software was helping the council to reduce its arrears.

"Coronavirus has had a major impact on the ability of some tenants to pay rent and our arrears consequently have increased. Furthermore, tackling arrears can be repetitive but having a product such as RentSense provides a new way of working to inspire our front-line staff and improve working practices where needed."



Hackney Council's IFRS partnership with MHR Analytics & CCH Tagetik

MHR Analytics and CCH Tagetik have partnered with Hackney Council to provide the local authority with a best-of-breed reporting solution, purpose-designed for public sector compliance with the important new accounting regulation IFRS 16.

Coming into force next year (2021/22), IFRS 16 is a very demanding accounting regulation that requires strict compliance when preparing financial statements covering the leasing of assets such as land or equipment. Organisations must collect, collate and report substantial amounts of lease data to remain compliant.

Nick Felton, senior vice-president, MHR Analytics, said, "The biggest change is the removal of the distinction between finance leases and operating leases. From premises through to big-ticket office equipment, IFRS 16 demands detailed consideration of lease data relating to a potentially huge range of assets – many of which were previously dealt with off-sheet.

"Under the new regime, active lease management is essential. Failures in data collection, calculation and disclosure can all mean sleepwalking towards non-compliance."

Implementation of the new combined MHR Analytics and CCH Tagetik solution for IFRS 16 gives the council the ability to manage more than 500 leases quickly and accurately, streamlining compliance. Rather than handling multiple spreadsheets, Hackney's finance team can consolidate all their leases in one location, with quick access to detailed information.

James Newman, chief accountant, Hackney Council, said, "IFRS 16 is a complex new regulation that could pose significant challenges. By partnering with MHR Analytics and CCH Tagetik, we have invested in a cutting-edge solution to remain compliant and fulfil all of the new regulation's tough requirements while maximising our long-term internal efficiency."

Flexible and fully ready for extension, CCH Tagetik Lease Accounting software is at the core of the new solution. Built for finance, users can easily adapt the solution without coding. MHR Analytics said that even if a local authority or housing provider has thousands of leases, the powerful data engine at the core of the solution can process contract data quickly and makes complex compliance easy.

Felton said, "Our solution is designed specifically for the public sector and removes the stresses associated with what could otherwise be a hugely disruptive process. It ensures Hackney Council will remain compliant without having to invest in substantial extra resources and will provide a smooth transition to the new standard."

Barnet Homes launches in-house repairs with Totalmobile



Barnet Homes is using Totalmobile's Connect cloud-based job management software to power up its new in-house housing maintenance and repairs service.

Pete Davey, head of IT, Barnet Homes, said, "Our vision is to deliver services efficiently, first time. To achieve that goal, we needed a modern system that could handle everything from appointment booking to work planning in a very unified and automated manner.

"Delivering the high-quality repair and maintenance services our tenants expect depends on us having full visibility of our operatives at all times, and that's exactly what Connect gives us, thanks to integrated job management and mobile working technologies."

Providing a real-time snapshot of the performance of field operatives, Barnet Homes has used Connect to streamline, automate and centrally manage its service delivery processes. The cloud-based solution provides all the scalability, integration with back-office systems and secure backup that the housing provider wanted to ensure its day-to-day operations are never compromised.

Davey said, "Even though we have only been using Totalmobile Connect since the start of the coronavirus pandemic, we can already appreciate its benefits. The dashboards provide us with the real-time visibility and control we need and the transition to a cloud-based solution means we now have complete confidence in the security of all our tenant and corporate data."

Barnet Homes is now using Connect to initiate a number of service enhancements that will extend the portfolio

of services delivered to tenants. In August, just months after the launch of the in-house service, Barnet Homes successfully brought its heating and gas servicing and installations back in-house.

Davey said, "Tenants now have the confidence of dealing with our own operatives, plus we're better placed to manage the speed and quality of our response to tenants' needs. Connect also gives us instant access to the data sets we need to determine the effectiveness and performance of our in-house maintenance and repairs service and evolve our offering accordingly."

Jim Darragh, CEO, Totalmobile, said, "With Connect, Barnet Homes can use real-time monitoring to trigger tasks into its work management system, increase workforce capacity with automation, and use a video-based diagnostic solution to reduce unnecessary site visits."

Totalmobile transforms operations at Coastline Housing

Coastline Housing has reported how it has transformed its repair processes and performance following its implementation of Totalmobile's Connect cloud-based job management software.

Coastline Housing originally chose Connect to streamline the delivery of its repair and maintenance services. The Totalmobile platform was then extended to support new service delivery innovations and power new digital services for customers.

In addition to managing the real-time job scheduling and reporting for over 100 remote operatives, Coastline Housing is using Connect to undertake sub-contractor and compliance management, handle responsive repairs,



and co-ordinate the entire lifecycle management of its property assets. The housing provider said that it is also using the end-to-end Totalmobile platform to deliver detailed data relating to repairs, whole life costs and workforce productivity.

Since its implementation of Connect, the housing provider is now responding to almost 90 per cent of repair requests within four days and achieving a 98 per cent 'first-time fix' rate for repairs at the first visit.

Barry Cox, IT business systems analyst, Coastline Housing, said, "Our goal was to create a powerful job

costing and dynamic scheduling system in order to reduce maintenance costs and realise efficiencies without compromising our service delivery. Totalmobile's Connect has given us the scalability to evolve our services, reduce non-productive time for contractors, minimise customer disruption, and manage our resources better.

"In addition to boosting customer satisfaction, we've been able to reinvest the surplus funds we've generated into improving our existing stock and building new houses – last year, we delivered over 300 new homes, created 300 new jobs and contributed more than £13 million to the Cornish economy."

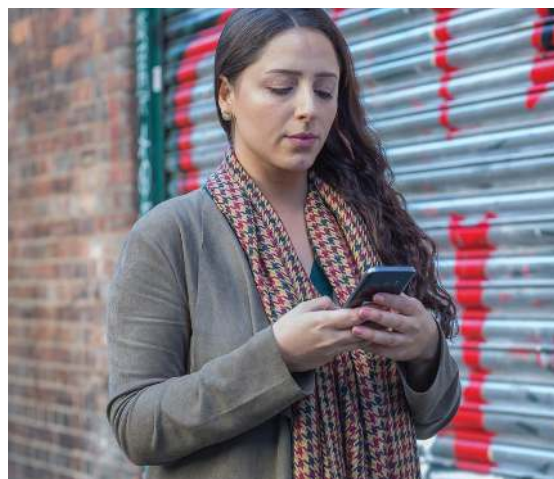
Live streaming from Orbis Protect

Housing staff in high-risk roles are being offered enhanced protection thanks to body-worn cameras, state-of-the-art live streaming technology and a 24/7 monitoring and response service from Orbis Protect.

Orbis Protect is introducing its Red Alert Body Worn Video service which works across 2G/3G/4G and wi-fi connectivity after forming a partnership with Digital Barriers to improve all-round reliability.

Shaun Wilcock, chief technology officer, Orbis Protect, said, "It's a step forward in personnel security because it brings everything that really counts together as a total managed service package – hardware, network connectivity, video management software, backed up with our market-leading 24/7 monitoring and response service.

"Thanks to the very latest live-streaming technology and our experienced team of vigilant staff, they will be assisted by pioneering and traditional forms of support to ensure help is available when needed."



Capita's emergency services software to support housing repairs

Capita has won contracts with MHS Homes and Rochdale Boroughwide Housing to deliver ResponsEye, a video-streaming solution developed from Capita's emergency services software, 999eye.

ResponsEye enables tenants to live-stream videos direct to their housing provider's customer support teams, without the need for a dedicated app. Tenants experiencing a problem with the property, such as a leaky tap or tripped circuit breaker, can show property maintenance staff what the exact problem is through a video link.

When a housing provider receives a call from a tenant, they will be asked if they would like to provide a live video stream of the scene using their smartphone or tablet. Using ResponsEye, the operative will send a text or email message with a secure, one-time link that opens a live stream direct from the device to the customer adviser. No data is taken from or stored on the caller's device.

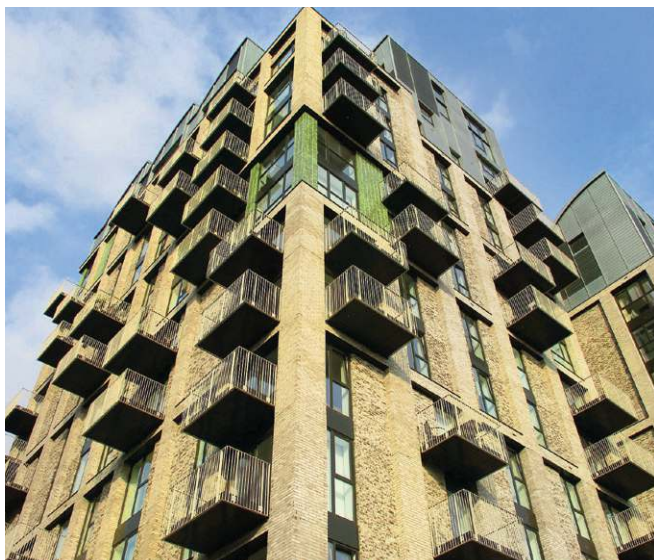
Calls will be handled by the customer contact centre in the first instance and if the problem is more complicated, the call will be passed to a repairs or housing officer who will have the technical experience to advise the tenant accordingly.

Being able to view the property in real time will help operatives evaluate the situation and advise tenants on how to fix the issue, such as where the fuse box is

and how to 'un-trip' the switch. If the engineer must visit the property to fix an issue, such as a leaky tap, the video would have helped them identify the exact replacement part required.

Andy Hamlyn, managing director, Capita One, said, "This is a great example of how versatile our software solutions are and how they can be applied to different sectors. We pride ourselves in developing and adapting technologies to deliver the best solutions and services for our clients so they can deliver better outcomes to their communities."

Capita's 999eye was initially developed to enable emergency callers to share accurate location information through live incident footage with control room operators. This 'eyes on the scene' technology helps to give despatchers an accurate picture of exactly what help is required and enable quick decision-making. It is currently used by 30 emergency services across the UK and the US.



Second-generation ASAP from Ark

Ark Consultancy has launched its second-generation Ark Strategic Asset Performance (ASAP) model.

Building on the success of the original ASAP model, 'Gen 2' is a dynamic, cloud-based solution providing information on stock performance from a quantitative and qualitative perspective, using data sets from internal and external sources, market intelligence, and customer and staff feedback to help understand the performance of housing portfolios.

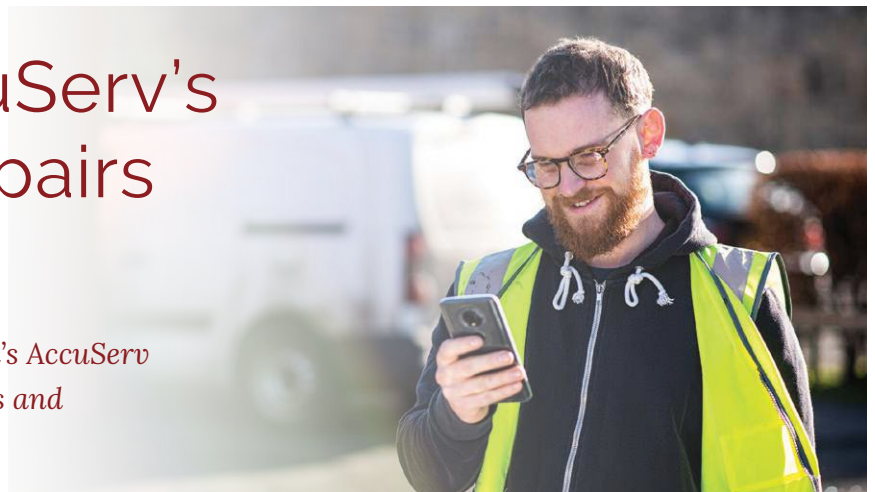
John Fisher, director, Ark Consultancy, said, "The Regulator of Social Housing requires boards to really understand their housing stock. Designed by our team

of asset experts, using feedback from clients and the success of our original ASAP, Gen 2 has moved to a cloud-based model.

"This allows easy user access, uses comprehensive data sets, has multiple dashboards with a powerful drill-down facility to interrogate data and directly links to accurate mapping, all at unit and scheme levels."

Orchard AccuServ's integrated repairs at Hyde

Hyde Housing has chosen Orchard's AccuServ software for its DLO-based repairs and maintenance operations.



Five years ago, the housing provider's system for managing the repairs and maintenance of its 14,500 properties was complicated, inefficient and untrustworthy. Its operations team was relying on numerous disparate business applications to manage its work, resulting in duplicate and often inaccurate data, endless emails to and from its trade staff, administrative backlogs and a lack of useful reporting.

Orchard's AccuServ Repairs & Maintenance software was deployed originally, integrated with Hyde's existing Northgate housing management system. Five years later, the housing provider has now replaced a third-party app with the AccuServ app for its contractors to manage their work on the move and implemented trade-supplier integration with two of its main suppliers for streamlined order management.

AccuServ's full integration with the Northgate HMS means that Hyde has gained the full efficiencies of Orchard's software without the need for a complete IT overhaul at the same time as increasing its confidence in the accuracy and timeliness of the data held within the two systems.

Hyde is also using the Orchard software to link with its trade suppliers' systems, thereby reducing administrative workloads and building efficiencies into the everyday workflows of its operatives carrying out repairs and maintenance appointments across Hyde's housing stock.

Paul Dew, head of operations, Hyde Housing, said, "Orchard is a great team to work with. They're available all of the time – when we need information or if we get stuck, the team is always at the end of an email. We have a good working relationship and nothing's too much trouble."



“Hi, I’m Neela”

Tina Kennedy, Head of Digital, Aareon UK

“Hello – pleased to meet you. I’m Neela. How can I help you?”

Aareon’s new AI-based virtual assistant, known as Neela, is set to adopt an increasingly independent role in helping to communicate with tenants. Currently still in the pilot phase, we expect that Neela will gradually transform tenant support in future.

Neela’s skills

If you ask Neela about her skills, her focus is on helping tenants and saving them time. Tenants will be able to communicate with her around the clock, at first via chat and then via voice.

The more queries Neela deals with, the faster her underlying algorithm will learn, to the point where an increasing number of tasks can be dealt with in the field of tenant communication.

We think of Neela as being 25 years old and having completed her ‘AI studies’. Her exceptional thirst for knowledge means that she is learning more all the time. We thought it was really important to endow our virtual assistant with some character – the result is Neela.

State-of-the-art technology

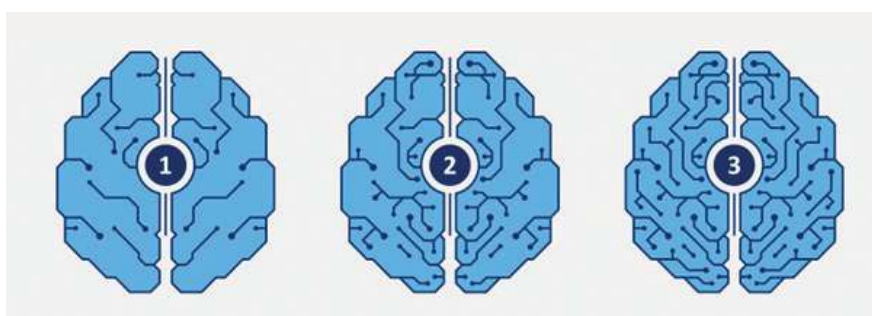
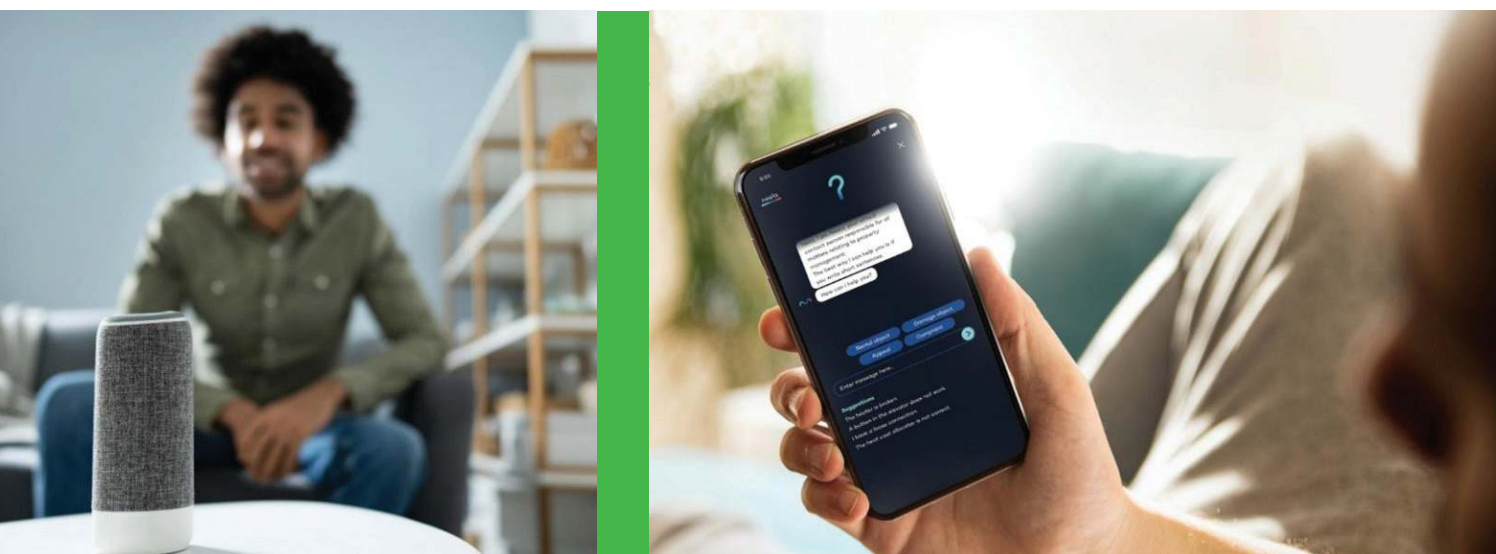
Neela is equipped with AI, state-of-the-art chatbot functions and the latest digital technology. The implementation process is set to cover three stages, starting with the basic level, which will see her providing access to existing services and processes via a communication channel. She will then be able to respond to a significant proportion of incoming queries regarding payment processes automatically and arrange dates for repair work with tradespeople, for example.

The second stage will see Neela offering guidance, training and support to users in her role as a ‘smart virtual assistant’, until she finally ‘graduates’ as an intelligent personal assistant, becoming the central point of contact for tenants housing providers and their contractors.

Numerous benefits

Our main objective with Neela is to provide housing providers and their tenants with an additional automated service channel that is accessible around the clock and supplements digital channels such as apps and online portals. Customers will be able to communicate with her via text, social media and even smart speakers such as Google Home and Amazon Echo.

Neela said, “You know a lot of those simple day-to-day questions from customers? They are queries I can handle for you no problem, leave it up to me! I will ensure your customers get a quick response and won’t leave them hanging. Why not let me take some of the weight off your shoulders so your team can concentrate on more complicated cases?”



International development

We developed Neela via a process of international collaboration starting in early 2019. Swedish housing provider Stena Fastigheter was involved as our pilot customer in May 2019.

Katarina Falk, director of ERP solutions, Aareon Nordics, said, "A particularly challenging aspect of development was selecting the use cases – these needed to be both technically possible from an implementation perspective while also providing sufficient added value for customers."

Pernilla Fröden from Stena Fastigheter said, "For us, Neela's added value is not a just cost-related consideration. We want to use her to boost our brand by providing a better, wider-ranging service for tenants and offering an above-average customer experience."

Aareon is not just investing strongly in virtual assistants, but also in a host of other new technologies; we spent €38m on research and development in 2019.

Imad Abdallah, a member of Aareon Group's management board and in charge of digital solutions, said, "Neela is yet another result of our future-oriented activities in research and development. We are investing extensively with a view to using new technologies for our solutions, thereby creating added value for Aareon's customers."

Tina Kennedy is the head of digital at Aareon UK. For further information about Neela, please visit neela.aareon.co.uk or email hello@aareon.co.uk

Technically... you owe your tenants



Gerry Kelly, CEO, Optus Homes

I don't mean financially of course... you don't owe them money (at least I hope not). I mean you owe your tenants a responsibility on your part to be efficient when dealing with their tenancies. A responsibility to maintain appropriate levels of modern technology to smooth the processing of interactions and make relevant data easily accessible while also conforming to modern security and privacy protocols.

But you also owe it to your tenants to let them communicate the way that they are happiest doing so. For a minority, that will always be face-to-face meetings, written documents and phone calls, but the majority of them want to interact quickly, cleanly and conveniently via clever apps on their phone.

If you were a tenant of the housing provider or local authority that you work for, what would you like to ask your landlord? What would you like to know that most regular tenants don't know or don't ask about? Whatever it is, that's exactly what you should be making available to your tenants today, or at least showing them where they can easily find that information. 'Fit for Human Habitation' and FoI requests are only going to increase, so it's time to make life easier for you and your tenants.

Communication, communication, communication...

I'm a firm believer that there is no problem in the world that can't be eased a little by better or more frequent communication.

It's true that some tenants have a 'them and us' approach to their tenancy, as do some housing providers. So anything we can do to enhance the frequency and quality of communication can only be a good thing.

Now you can't afford to phone each tenant daily, but you could let technology take the strain, in particular technology that your tenants have already invested in and use daily. A good tenant app must have messaging systems that allow you to push communications to

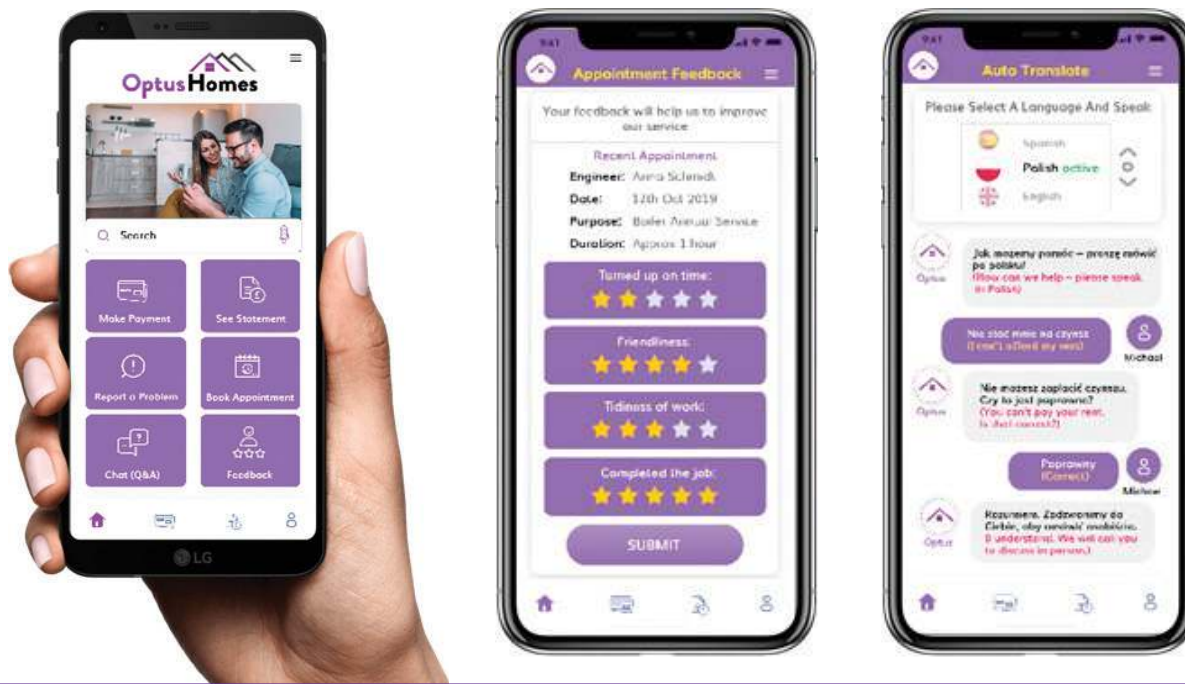
tenants at will, about any subject – community, lockdown, the weather, repairs, local bus services, anything. And I do mean daily. If they don't like it, they will soon let you know, but more than likely they will occasionally respond with questions or suggestions. Next thing you know you're both starting to like each other – happy days...

Tenants actually want to help. Why? Put simply, because it makes their lives easier if they can pull relevant data (i.e. their own data) on demand into their lives, in settings and at times of their choosing. They don't want to wait; as consumers they aren't used to waiting and they simply won't wait. If a tenant feels threatened by an emergency repair, they want to take control by reporting it immediately and feel sure that they are being heard. A smartphone combined with powerful apps can give them that reassurance.

Frustration and anger

Imagine 50 tenants on an estate witnessing a nasty ASB incident late on a Saturday night (**fear**). What can they do? Unless their housing provider has full 24/7 coverage, they may have to wait until the next day or even Monday morning before they can report the issue (**frustration**). Multiple tenant calls may mean delays in getting through to the housing provider's call centre (**anger**). Overall, the result is a sense of not being in control, a sense that things should be better and easier.

Now imagine that your tenants have a powerful app to report the incident as it's happening, attach pictures or video clips, and know that other tenants are also



“Mobile has won... smartphones have a 98 per cent household penetration in the UK.

reporting it. Imagine their sense of relief in getting their housing provider's immediate acknowledgement of receipt, followed by a reassuring message sent just to that estate or community, outlining what action will be taken. An app won't stop antisocial behaviour, but it can give tenants a sense of having some element of control, a sense of 'voice'.

The same applies for reporting repairs, paying rent or scheduling visits. The Optus Homes app is fully integrated into most housing providers' existing systems and allows tenants to view their rent histories, schedule and confirm repairs visits, pay their rent and exercise a strong community voice by pushing messages and opinions back to their housing provider. The app allows housing providers to create surveys on any topic in a matter of minutes (furlough, mental health, rent arrears, local amenities... anything).

Incentivise your tenants

The time will come when housing providers will actively offer discounts on rent or arrears in exchange for signing up to such an app.

Why? Because not only will it result in happier tenants who feel more in control, but also because the efficiencies for housing providers will be significant, with real commercial benefits.

How many repair reports does your organisation receive every day or each week? And how many external phone calls are associated with each repair? Probably two or three, with each call costing your organisation about £5.

Now consider the benefits of a happier tenant reporting the repair and being able to schedule a repair visit via an app that is linked to both your housing management system and your repairs scheduling system. Zero phone calls. That immediately achieves significant cost savings and delivers valuable efficiencies.

Small and large housing providers

There are a variety of app solutions available to housing providers; they generally fall in to two broad categories:

- Generic branded apps, such as Empient, are plug-and-play solutions requiring no integration and developed especially for smaller housing providers. Out-of-the-box features will typically include repairs, ASB reporting, messaging, rent payment, landlord surveys and perhaps an optional chatbot.
- Bespoke branded and more powerful apps, such as Optus Homes, that are fully integrated with larger housing providers' existing IT systems. Additional features would usually include access to historic data (e.g. rent) and scheduling processes, plus perhaps sentiment analysis for tenants' messages.

Nowadays, both categories of app are generally available via software-as-a-service commercial models, avoiding the need for any capital outlay or lengthy development programmes. It's always strongly advisable to insist on a free try-before-you-buy trial and test it with a subset of tenants to judge the tone of message and your preferred features before a full roll-out.

“85 per cent of all online activity from smartphones is via apps, not browsers.

It's equally important that your app's design is modern and intuitive. Consumers judge all new apps by the standards of the 10 most popular apps (Facebook, Uber, Netflix, Instagram and so on); that shouldn't be the case, but it is. It's therefore really important that your chosen app is designed with tenants in mind. After all, it's not about you or your preferences – it's all about them, your tenants.

Don't wait for your tenants

As I write, Northern Ireland, Wales and large parts of England and Scotland are all back in lockdown. Repeated cycles of lockdown-and-release look likely right through

the winter and beyond. But even after that, life for many tenants will never go back to a pre-coronavirus 'normal'. Now is the best possible time to listen to their voices.

I've spoken to many housing providers over the past 12 months, and I often hear the view that tenants are slow or reluctant to communicate. No doubt that's true in some or even many cases, but housing providers really should take the initiative.

Encourage communication and dialogue, and if your old methods aren't working, perhaps it's time to try something new? Try messaging tenants direct to their smartphone, with messages that are tailored for them. It worked for Donald Trump, so why not give it a try?

Gerry Kelly is the CEO of Optus Homes.

Gravesham's self-service repairs with Active Housing

Gravesham Borough Council is moving all of its repairs reporting and appointment management online with Active Housing as part of its complete digital transformation of tenant services by 2023.

The council has chosen the full suite of Active Housing's Active Diagnostics products. These include the core Active Diagnostics product, allowing tenants to diagnose, log and schedule a repair appointment in under 99 seconds, according to Active Housing. This will be supported by the Track and Amend module for appointment management and feedback, and the SMS module for automated reminders and appointment alterations.

The Active Diagnostics tools are now integrated with the council's website, allowing tenants to launch the repairs reporting tool by completing a few simple details without the need for a dedicated portal login.

The first phase of the project was the launch of the core Active Diagnostics product combined with the Track and Amend module so that Gravesham's tenants can diagnose their own repairs then book, amend or reschedule appointments as well as leave feedback on

completed repairs. The second phase comprises the integration of Active Housing's SMS module.

In order to provide tenants with full end-to-end transactional services, Active Housing's software was integrated with the council's existing Oneserve field management software.

Following its successful implementation (much of which was during the first UK lockdown), Gravesham's staff and administrators are now using Active Diagnostics' content management system to create and edit diagnostics scripts for repairs, change the system's business rules and reporting logic, and deliver comprehensive reports for business intelligence.

The council's online repairs service was launched in July 2020; since then, over 500 appointments have been managed and 300 repairs completed without any direct promotion from the council itself.

EMPIENT is the Very Best Tenant App

...and it's totally

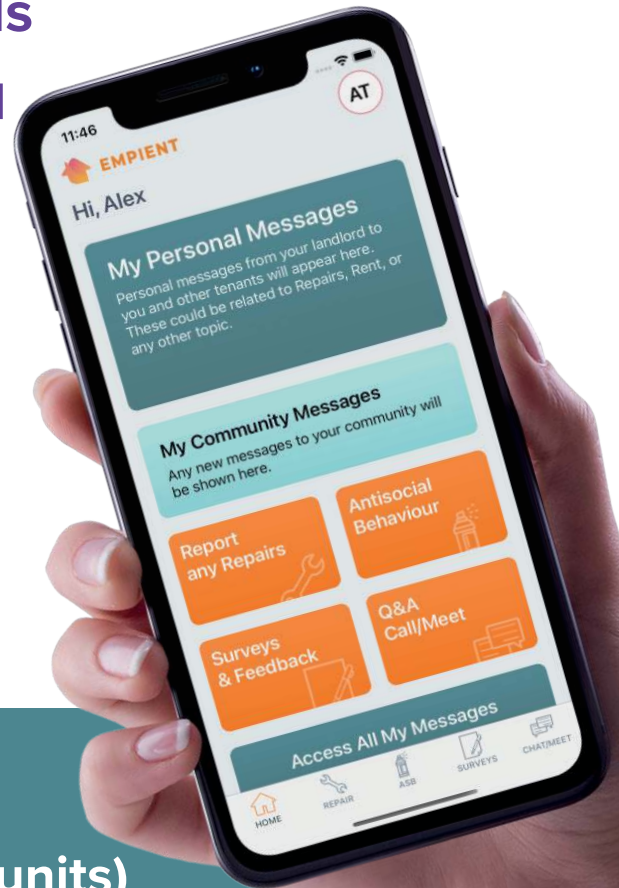
FREE

HUGE efficiencies for landlords

- No technical knowledge needed
- Plug and play, no integration
- Launch to tenants in 1 hour

24/7 total convenience for tenants

- Report repairs and ASB
- Survey completion
- Chatbot included
- Upload pictures or video
- Landlord meeting or call-back request



**50 Free EMPIENT licences for
smaller social landlords (0-2000 units)
First come first served (time restricted)**

EMPIENT is a powerful and intuitive app for social housing tenants. It was designed in conjunction with small housing associations, especially for landlords with less than 2,000 units. EMPIENT includes an integrated landlord portal that allows you to push messages to tenants, create tenant surveys on ANY topic and get instant statistics and analysis.

Contact Gerry at Optus Homes

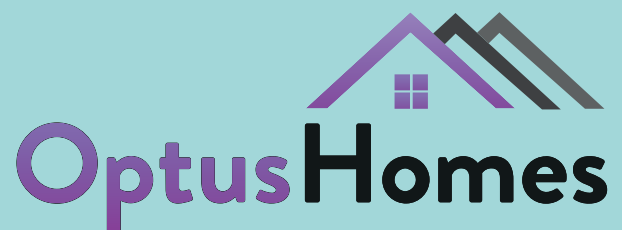
gerry@optus-homes.com

www.optus-homes.com/empient



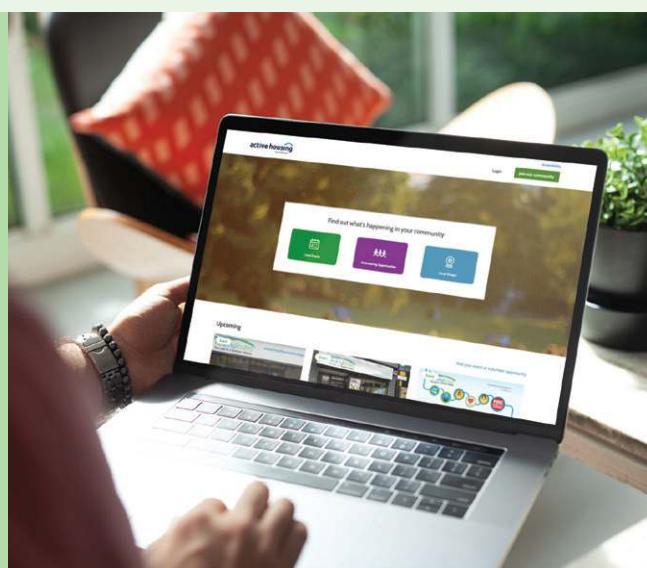
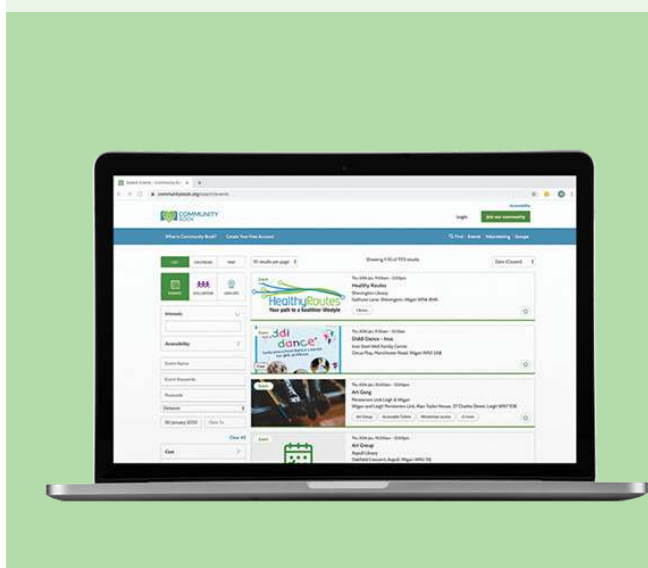
@optushomes

Optus Homes is a listed G-Cloud 12 supplier



Active Community connects socially-isolated tenants

Following its acquisition of the Community Book platform, Active Housing by Hallnet has rebranded and launched it as its latest digital solution to connect tenants, bring communities together and tackle the threat of social isolation, particularly in the face of further coronavirus lockdowns.



Developed with help from Wigan Council, Wigan Borough Community Partnership and Inform People, the Active Community platform enables tenants, businesses, groups and organisations to list their regular activities, events and volunteering opportunities and is a one-stop-shop for what's on in local neighbourhoods.

Stephen Hall, director, Hallnet, said, "In these challenging times, we decided that it was important to invest in the Community Book platform, which is now part of our Active Housing suite. Community Book was a massive success in the Wigan area originally and we can see housing providers and local authorities across the UK benefiting from it.

"Through empowering tenants, housing providers, local groups and businesses to create, host and administer their own groups, promote events and establish opportunities, Active Community supports the growth of involved communities, highlights gaps in provision and provides a mechanism to reduce social isolation."

After users set up an account, Active Community matches events, groups and volunteering activities to each user's interests. Over the past year, there have been almost 200,000 group searches using the platform to search for events, such as coffee mornings or a weekly quiz, activities including walking groups and digital training sessions, as well as using search criteria for listings such as domiciliary care or telecare monitoring support options for older people.

Active Community's volunteering section enables organisations and charities to post volunteering opportunities available to local residents, with more than 48,000 volunteering searches made over the past year. Users of the tool can search volunteering options or allow themselves to be matched to certain organisations based on their skills and interests. Digital forms also mean that organisations can review, approve or reject applications directly through the system.

Active Diagnostics

The benchmark in online self-service diagnostics

An intuitive repairs diagnostics solution for both tenant and call centre users which boasts a powerful, feature rich editor for system administrators, with statistics that speak for themselves.

At a glance

- Launch standalone or embed into an existing portal
- Simple problem selection
- Helpful information and self-fix videos
- Image and video capture
- Phone number confirmation
- Appointment time estimation and selection
- SMS confirmation and reminders
- Call centre mode with dedicated features
- Existing integration with the majority of Housing Management, CRM and Scheduling systems
- Track & Amend (incl. cancel / reschedule)



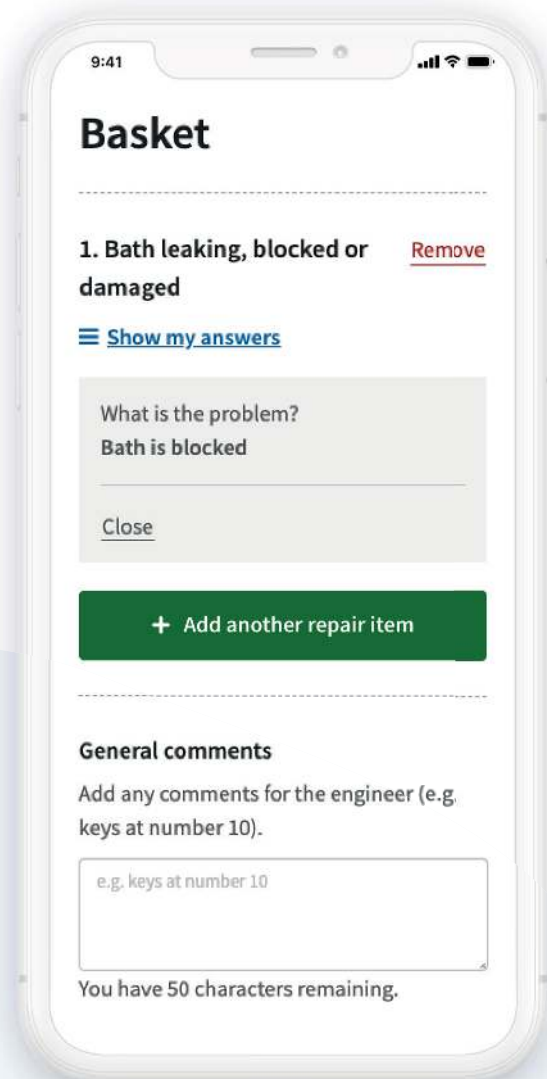
**60% reduction in
inbound calls**



**8% improvement in
Right First Time**



60% reduction in No Access





How to train your chatbot

Scott Summers, Co-founder, Fuzzlab

Done well, chatbots enable better customer self-service and improve customer satisfaction. However, a good implementation requires some knowledge of how chatbots work, and you need to get a few things right if you want to get the best out of your new virtual employee.

Natural language understanding

Even though there are infinite ways your customers could ask the same question, most humans understand language well enough that they can figure out the intent of what's being asked. Traditional computer programmes can't do this because each variation would need to be written in the code in order to be recognised.

For example, different ways of asking the same thing:

- Hello, what's my rent balance please?
- How much rent do I owe?
- What's left to be paid of my rent this month?
- Hi, my name is Julie, can you tell me the outstanding balance on my rent account?

Your chatbot uses artificial intelligence that recognises language patterns and can be trained to figure out the query's intent regardless of how it's been asked. If trained well, your chatbot can also deal with text-speak, lack of punctuation, misspellings, some people remembering their manners while others might not feel the need to do so.

It's not a search engine

It's a common misconception that chatbots just need a single keyword such as 'rent' to understand the intent

Real examples of how tenants ask the same thing in different ways ...



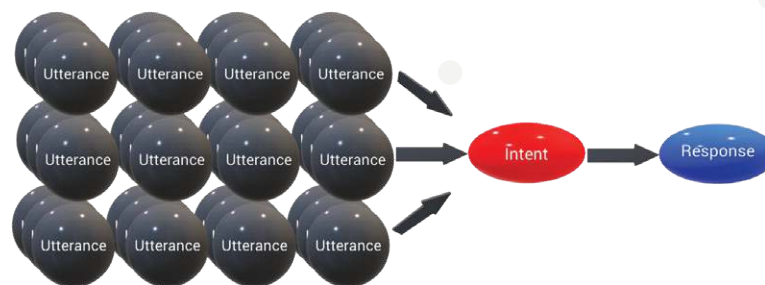
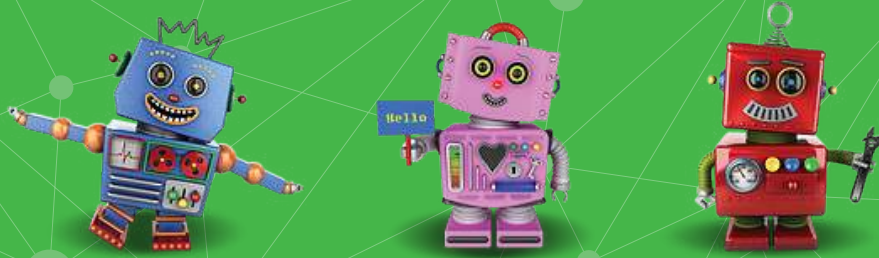
of the user's question, much like a search engine would. While it's acceptable for a search engine to provide dozens of possible search results, for a conversation with a chatbot to feel natural, it typically needs to provide a single response or at most a few options that the user can select from. This is relatively easy to achieve if you only need your chatbot to answer one or two rent-related questions. But you'll probably want your chatbot to be able to provide a unique response to a good number of rent queries, such as:

- Can I get a new rent-card?
- Is there a rent holiday this year?
- Is there a rent freeze because of coronavirus?
- Can I pay my rent via direct debit?
- What should my mum do if she can't afford to pay her rent?

Like a human, your chatbot can't guess what the customer wants if they only type in a single word such as 'rent'. Your chatbot uses a mathematical process, sometimes called an algorithm, to predict the intent of the customer's query. It will assign a percentage likelihood, or confidence rating, for each of the potential intents and respond to the most likely one.

Some chatbot jargon

A good chatbot should handle the variety of ways tenants might ask the same question, and so you'll need to train it to do so. We call the query the customer is trying to convey the 'intent'. And we call the variations of the original question the 'utterances'.



You'll need to tell the chatbot the response you want it to provide for a specific intent, and these might change over time. For example, as we move in and out of lockdown due to coronavirus, the response to "I'd like to book a repair for my dripping tap" will change.

When training your chatbot, you'll need to provide around 20-30 utterances for each intent. A chatbot for social housing can easily have over 400 intents and 10,000 utterances.

And this is where AI comes into its own. From this relatively small number of variations, chatbots use AI to identify patterns and create a neural network so that it can recognise a much broader set of utterances. Even if your chatbot hasn't been trained to recognise the exact set of words or phrases that a customer uses, a well-trained chatbot will still be able to identify the intent. Once it knows the intent, it can provide the corresponding response that it's been trained with.

How to train your chatbot

If you buy a chatbot product or platform, you have a few options to train your chatbot with the intents and utterances you need it to know:

1. Create them from scratch;
2. Extract them from customer emails and/or support-call transcripts;
3. Buy a pre-trained, sector-specific chatbot.

If you're building your own chatbot, rather than buying a platform or product, and have access to an extensive data set of utterances and appropriate responses, you can use machine learning so that the AI can train itself.

Training your chatbot to recognise the correct intent accurately takes a lot of effort, and a lot of testing to get it right and so buying a pre-trained chatbot, where all the hard work has already been done, can make a lot of commercial sense.

Beyond the utterances and intents, there are many other things you'll need to do to tune the AI. Things such as pluralisation, spelling errors, text speak and recognising entities – such as different rooms in a house, different types of units and various family members also need to be taken into consideration.

To get the most out of your chatbot, it's important to invest the time to train it properly. Anything less will result in customers not getting the responses they need and a frustrated call into the contact centre.

Scott Summers is the co-founder of Fuzzlab.



Stay home and stay safe for longer with TECH

Graeme Hamilton, TEC in Housing Engagement Officer,
Technology Enabled Care in Housing (TECH)

How do we set about enthusing older people and those with additional care needs about the benefits of technology in their homes? Great engagement between housing and care staff and their client helps, while a pandemic also has the potential to create a disruptive environment to spur housing providers to try some different approaches to the problem.

Just over a year ago, in a pre-coronavirus, less digitally-active world, we launched the Technology Enabled Care in Housing (TECH) charter in Scotland. The charter has been designed to seek commitment from Scottish housing providers and local authorities' housing departments to develop and support the capability of their tenants and extra-care customers to optimise the use of technology in their homes and in doing so, be able to live independently at home for longer. With a reach to over 500,000 homes managed by these landlords, the potential to introduce life-changing and innovative technological developments is huge.

There are seven pledges at the heart of the charter. These have a strong focus on engaging customers in the design of TEC-enabled services, encourage partnership working and the sharing of ideas, and include a willingness to review and redesign services to support TEC solutions for customers.

Organisations keen to sign the charter need to select at least three of these and demonstrate either their intent to work towards an achievement, show that they are already working towards such an achievement, or evidence their success within that pledge area and be willing to support others.

Let's look at each in turn.

Opportunity and solution focused

Housing providers need to define the issues they face in meeting customer needs and understand the opportunities TEC can bring. They need to be aware of which TEC options are simple and easy to implement and recognise that other options will need further development and testing. Senior leaders need to listen and learn from the experiences of their customers as well as other organisations who have addressed similar issues.

Engaging with customers

As more customers are living longer and often in poor health, housing providers need to maximise the benefits of TEC solutions by taking account of their needs and putting them, their families and/or carers at the heart of the co-design, testing and review of customised services.

Working in partnership

This is about sharing ideas with others and working collaboratively within their own organisations, as well as the wider housing sector, allied professions, universities and other research institutions.

Preventative analytics

Housing staff need to work in partnership with customers and others, including health and social care colleagues (commissioners and providers) to investigate the use of preventative analytics to achieve the greatest impact



for vulnerable people. They would then use the data generated to help with strategic planning and the management of assets and services, while taking account of ethical and data privacy issues.

Service redesign

Using technology as a key element of service redesign, business would provide preventative and supportive TEC solutions for existing and future customers, in turn producing better outcomes for individuals and their families and/or carers.

Supporting the workforce

Helping tenants and customers is one aspect; supporting staff to enable them to adapt to the changes brought about by TEC is equally important. Housing organisations should provide staff with opportunities to increase their knowledge of the role of TEC and digital healthcare, and use the insights of front-line staff to influence service redesigns.

Getting the infrastructure right

Obtaining the best advice and support to enable good decision-making when investing in any technological infrastructure or equipment used for delivering TEC solutions is critical to any housing business. This includes being aware of the opportunities provided by the analogue-to-digital switch over.

Since the launch of the charter and working around a pandemic that removed the opportunity to meet senior leaders and volunteers, nearly 40 housing providers and local authorities have already signed the charter. Every six weeks, key TEC leads from each organisation meet to share good practice and recent developments, focusing on the key pledges they are working towards and supporting each other with practical outcomes and opportunities.

To those housing professionals in Scotland who have not yet signed the charter, I urge you to consider the benefits now and join the growing network. To those people elsewhere in the UK and the wider world, we'd like to give you a chance to share your experiences and help more people in Scotland live independently at home for longer, with the best TECH support possible.

Graeme Hamilton is the engagement officer for the Technology Enabled Care in Housing (TECH) programme in Scotland.



Housing Solutions' digital commitment pays off



Orla Gallagher, Chief Executive, Housing Solutions

If access to broadband wasn't considered an essential service before coronavirus struck, it certainly is now. As a housing provider, it's critical to our tenants in so many ways and we have, for several years, been developing our own pioneering online service. This shift has dramatically accelerated during the pandemic.

Our work around digital inclusion has given us a head start when it comes to providing the virtual services people now rely on, and several of our long-term initiatives have really proved their value recently.

Digital inclusion

In 2013, we began providing residents who didn't have access to wi-fi with a connection through our own network. We have since connected around 1,600 residents who would otherwise not have been online, including some of our most vulnerable tenants.

For many of them, it provided a vital link to the outside world during lockdown and the social relationships that play a huge part in combatting loneliness. Just as importantly, access to digital job seeking and training will be vital as our residents deal with the economic fallout of the pandemic.

Being able to get online also means our residents can use our 'My Housing Solutions' portal. This enables them to carry out regular tasks, such as paying rent or registering a repair, 24 hours a day with no physical contact.

Bespoke Alexa skills

Complementing this is our dedicated Amazon Alexa Skill tool which we launched earlier this year. We've developed it with the specific needs of our residents in mind, allowing them to access our portal through voice activation. Many have grown to love it, including one resident who said, "Sometimes picking up the phone is awkward when cooking dinner or the children are running around the

house – it's really easy to connect with Housing Solutions to book appointments or check rent statements."

We have also improved our chatbot so that it can answer residents' concerns better and help them find answers online, reducing the demands on our customer service staff. The chatbot now has 1,200 interactions a month and growing.

Of course, our residents aren't a homogenous group. They each have different needs and different circumstances to cope with. Some are very digitally savvy while others are less comfortable adopting new technology. That's why a crucial part of our digital strategy is building awareness among our community. In many cases, it is those who are least likely to use a tool such as Alexa Skill without support, such as the elderly, who would benefit the most from what is has to offer.

Getting to know you...

Before the pandemic, we regularly ran events and roadshows to grow awareness and will do so again when we can. We also hold a 'get to know you day' each year – we close all our offices so that every member of staff, including me, can knock on residents' doors and help them register for our portal and answer their tech-related questions.

Right now, 51 per cent of our tenants have a live account for our portal and since coronavirus took hold, there has been a 150 per cent rise in usage. More than 1,000 residents check their account at least once a month and

For a long time, we've seen digital as a real opportunity to provide better services and it's something I've been keen to push since I became chief executive. The pandemic has increased the pace of change and we expect the rise in engagement during lockdown to continue. But that's only because the tools we've developed are easy to use and address the needs of our residents. For example, we've analysed the calls that come into our contact centre to find common themes and used them to refine our online offering.

Orla Gallagher is the chief executive of Housing Solutions.



Digital wellbeing starts with you...

George Grant, Publisher & CEO, Housing Technology

Digital technologies have permeated our everyday tasks and interactions have radically altered the way we run our lives, work, learn and socialise. This reliance on the use of technology has led to considerations of the potential consequences on our environment, society and wellbeing – how we behave, communicate and interact in both physical and virtual worlds.



Imagine a world of work where we feel inspired and energised, with a clear sense of purpose to reach your full potential. Even pre-coronavirus, there was a sense that putting people first was a better

way of achieving productivity. However, the pandemic has changed the way we live, work and connect. Getting the balance of work and home life is more important than ever, and our reliance on technology plays an ever-more crucial role.

BT's Dr Nicola Millard, talking at Housing Technology's Resilient Innovation event, said that for many people our home is our office. This means that our devices are always on, and the compulsion is often to work longer and longer hours. The issue is that the workday has encroached on our lives with technology enabling people to start earlier and end later. These extended hours drain us of energy, and we become more stressed, affecting our ability to be truly productive, healthy and think clearly.

A better way

Given that technology now underpins almost everything we do, how can we harness it to ensure that people don't

burn out and get stressed at work? How can we help our teams to flourish, even under present conditions? To understand our relationship with technology, it's a useful exercise to take a look at our interactions with media, technology and all digital communications. Without realising it, we may have formed unhealthy habits which impact negatively on our physical and mental health and relationships.

Five tips to help:

- **Awareness** – Take time to reflect on how you're using technology at work. Take regular breaks to avoid stress in the shoulders and neck.
- **Set boundaries** – Make sure you keep times when you are 'at work' and when 'work's done'. This will help with the blurring of work/home life. Adopt the practice of using calendar apps to make your diary public so you can block off rest time.
- **Stay focused** – Multi-tasking is a terrible idea. Prepare for your meetings and ensure you know the purpose. Choose to be present in the discussion and switch off notifications, so you're not tempted to read your texts or emails at the same time.
- **Communicate** – Ensure your team follows a healthy way of communicating. Without the ability to meet face-to-face, it's easy to suffer Zoom fatigue (i.e. cognitive overload) – schedule breaks between meetings to make notes and reflect on the previous session before embarking on the next.



- **Balance** – Make a conscious effort to switch off and avoid the negative distractions technology can provide. Too much information and screen time can lead to less productivity and even burnout.

Housing providers lead the way

One organisation which puts its people at the heart of its organisation is Melin Homes. Based in South Wales, Melin Homes was ranked sixth in The Sunday Times '100 best not-for-profit organisations to work for' in 2020, having launched its 'Zest' wellbeing programme in 2011.

Likewise, Home Group was recently listed in the 'Top 10 great places to work 2020' survey for the second year running. This is an excellent indication of its commitment to staff as it was ranked way above a long list of blue-chip multinationals.

Housing Technology Wellbeing

We launched Housing Technology Wellbeing earlier this year to allow our community to share and learn how other organisations are approaching the creation of healthier work cultures. A recent report found that job quality has deteriorated over the last two years, and the pandemic has had an even worse impact on people's mental and physical health. It's clear that employers need to identify the leading causes of stress and improve their methods of supporting their staff.

That's why we're now planning to explore what housing professionals need in terms of wellbeing and support by undertaking dedicated research. We will be working with a select number of progressive housing providers to improve staff wellbeing at all levels across the UK housing sector.

About our research

We aim to explore how we can develop this channel as a useful tool for the sector. The information we gather needs to be drawn from industry professionals to ensure that we build a valuable and information-rich report. Qualitative analysis will be conducted on the findings of this research which we will use to create an insightful report. This report will include a manifesto for change and will be shared with the Housing Technology community.

We are interested in hearing from anyone who would like to learn more and to be a part in our research.



Healthy working practices

A workplace stress survey of 2020 found that a worrying 79 per cent of employed adults in the UK commonly experience work-related stress, 20 per cent higher than the same 2018 study. What is equally concerning is that only one per cent of working people say they never experience workplace stress. The study found that 'long working hours' was the most common cause of work-related stress.

Some ways to avoid overloading your team:

- Keep checking in to ask about workloads and ensure employees are not under too much pressure, both at work and at home.
- Make sure you have managers who are well trained to have sensitive discussions about wellbeing and to work on ensuring regular communication in a world where most staff are working remotely.
- Offer good health and wellbeing benefits at all levels, and make your communications individualised.
- Give your team more autonomy or control over how, when and where they work to help them manage work pressures.

Psychological safety

Business leaders everywhere should lead by example and set more time aside to spend with their families and trust their staff to get the job done.

What we should be looking at now are outcomes that are delivered, rather than spending long hours at a desk. Google's head of industry, Paul Santagata, said, "There's no team without trust." Google conducted a sizeable two-year study on team performance which found that the highest-performing teams have one thing in common – psychological safety, the belief that you won't be punished when you make a mistake.

In other words, put your team's wellbeing at the heart of all your activities and ensure that they are thriving, not being drowned by too much technology.

George Grant is the publisher and CEO of Housing Technology.



Accelerating cloud-based transformation at Housing Plus

Zillah Moore, Director, Tunstall Healthcare

Tunstall Healthcare's director, Zillah Moore, discusses the role of technology-enabled care services (TECS) in keeping vulnerable people connected to key stakeholders while living at home, including clinicians, housing providers and communities, particularly during the pandemic.

Over the past decade, many technological innovations have become mainstream: millions of people use technology at home and on-the-go to support daily living; voice-activated assistants, smart doorbells and wifi-enabled household appliances are widespread in UK homes; and smartphones support 'transportable' services, including email provision and even counting steps.

During the coronavirus pandemic, technology has become even more integral with video-conferencing platforms, online shopping and health technology gaining widespread usage.

The impact of the pandemic has had significant negative impacts on daily life and most elements of health service and housing provision, but it has also placed a spotlight on the role of technology in safeguarding vulnerable people and its potential in a post-coronavirus world.

The development of TECS adoption

Innovations in TECS provide remote monitoring of health and care needs which are vital to enable vulnerable people to live independently for longer, reduce pressures on loved ones and support the health and care sectors. However, these technologies are rarely integrated or replicated across different systems. The reasons for this

are complex, including fragmented health and care structures, limited resources and a reluctance to change. Health and care services are often required to be provided in multiple forms, including paper and telephone, leading to an impact on the adoption of TECS and its potential cost savings.

The coronavirus crisis has led to a significant shift in how technology is used by the NHS, social care organisations and housing providers. There has been increased investment in remote monitoring devices, voice-activated assistants and other technologies to support clinicians and carers in the care of vulnerable individuals while reducing face-to-face contact.

Technological initiatives, such as remote patient monitoring, which would previously have taken months to become operational, have been established and mobilised within weeks. Solutions implemented during the pandemic have benefitted a range of cohorts, including people living with mental health conditions such as eating disorders, care home residents and people with long-term conditions.

The latest generation of TECS, deployed to keep vulnerable people connected during the pandemic, has moved from enabling people to get help in an emergency to providing proactive support tailored to individual needs. Vulnerable people can now be supported in their communities, and this will only increase as we move towards the next phase of innovation with a focus on intelligent data-driven insights.

TECS can greatly reduce pressures on the UK's services by providing predictive solutions which enable health and social care providers to determine those most at risk across a range of settings. Specific benefits of integration include improved patient outcomes and service-user experiences, reduced pressures on staff and carers,



improved remote-health monitoring to limit infection rates and cost savings.

The benefits of TECS

Digital health and social care services have the potential to transform the lives of millions of vulnerable people and enable the ongoing provision of support services.

The pandemic has illustrated the requirement for technology adoption to connect people to the services they need, enable integrated care provision and equip users to manage their own health and wellbeing remotely.

Remote health monitoring services enhance the prevention agenda and enable care to become more predictive and proactive, reducing the need for more complex and expensive care later on. It also enables greater flexibility in terms of where care is delivered; for example, more people can access the care they need at home or in their community rather than having to visit a hospital or clinic.



Not only has this helped health and care services in providing support to coronavirus patients, but it has reduced costs and encouraged service users to proactively engage with their medical conditions.

The continued application and integration of technology will allow the healthcare sector to redevelop, which is currently one of the key challenges faced by providers. This would deliver significant benefits, not only in improving patient outcomes and the quality of service-

user experiences, but also in delivering cost avoidance, as demonstrated during the pandemic.

TECS in a post-coronavirus world

Technology must play a pivotal role in how health and care services are remodelled in a post-coronavirus world to create a true 'healthcare' system.

The pandemic has provided clear evidence that TECS play a pivotal role in providing better patient experiences, improved health outcomes, greater staff and carer experiences, and reduced healthcare costs for individuals, the NHS, local authorities and housing providers. However, it's only in the past few months that health and care services, housing providers and assisted living providers have begun to fully embrace the full potential of TECS.

Stakeholders must work together to develop innovative models of care which support more effective care delivery and long-term efficiencies, and it's crucial that we see greater collaboration between the NHS, housing providers and technology innovators to enable further independent living.

While the adoption of technology increases, this will only benefit vulnerable people so far unless the workforce is digitally upskilled. This should be considered a priority so that the transformational benefits of digital technology are realised during coronavirus and beyond. This can also be achieved through the evaluation of TECS and their impact so that providers can truly understand why technological integration is crucial.

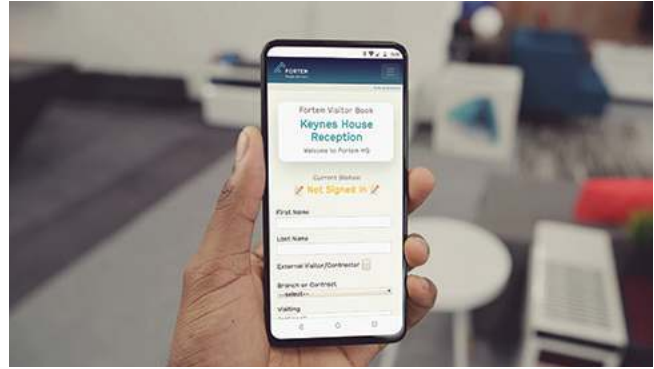
Local authorities, the NHS, and the third sector must also invest in enabling vulnerable people to live in their own homes for as long as possible. Care and support packages should be developed which hinge on TECS, and provide integrated patient-centric services, with common objectives, cross-functional working and interoperable systems.

Zillah Moore is a director of Tunstall Healthcare.



Fortem develops contact-free digital sign-ins

Fortem has developed and begun trialling a new, contact-free digital sign-in system for site visits.

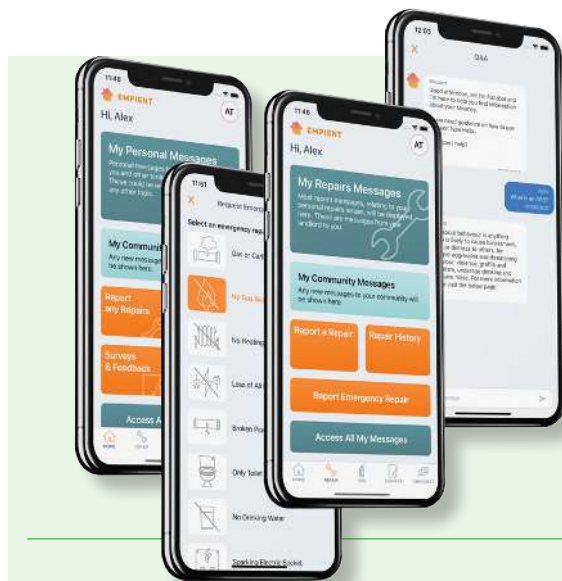


The QR-code poster and backend website can be customised allowing the system to deliver key health and safety information when the user signs in. The solution gives flexibility for each site allowing for unique information specific to that site.

From a visitor's point of view, the process comprises two steps – scanning the QR code and completing the sign-in form. The system has also been linked with Fortem's internal employee app, Connect4tem, to allow internal staff to use the app to prepopulate the sign-in form. The

digital sign-in form also contributes towards coronavirus guidelines because temperature test results are required when signing in.

Melinda Simon, national health, safety and environment manager, Fortem, said, "The digital sign-in system was launched just as social distancing and stricter hygiene requirements became the norm. At very short notice, we needed measures that would protect our key workers while they continued to deliver critical work to our customers."



Free tenant app from Optus Homes

Optus Homes has just launched Empient, a tenant app for housing providers with up to 2,000 properties.

Gerry Kelly, CEO, Optus Homes, said, "As part of our launch, we are giving away free Empient licences to 50 smaller housing providers. There are no hidden charges or obligations – any housing provider with fewer than 2,000 properties is eligible so get in touch as soon as you can."

Optus Homes said that deploying Empient is as simple as emailing tenants an invitation to register and

download the Empient app. Any input from tenants is then delivered direct to the housing provider's management portal which is included in the Empient package. The portal can also be used to push out messages and surveys to tenants, canvass their opinions and offer incentives.

Tenants can use the app to report repairs and anti-social behaviour,

direct messaging to and from their housing provider and give feedback on any survey topic.

Kelly said, "Tenants like to be listened to when they have problems. They like to have a voice and have a simple and modern way of getting their message across. And that's what Empient is all about – giving tenants a louder voice."

L&Q joins DPS Marketplace



L&Q has joined the DPS Marketplace framework developed between software provider Plentific and housing providers Notting Hill Genesis and Peabody.

The DPS Marketplace enables 'smart capacity management' for housing providers around their maintenance and repairs operatives, while also giving local businesses unprecedented access to exclusive contracts from RSLs, provided they meet strict, trade-specific requirements.

Plentific facilitates the dynamic DPS Marketplace to ensure the smooth running of operations through its cutting-edge platform. The company proactively manages every stage of the process, from vetting new contractors through to issuing responsive repair jobs to a pool of contractors and monitoring and reporting operational KPIs.

Gerri Scott, group director of customer service, L&Q said, "We're delighted to be working with Plentific to enhance the quality of the repairs and maintenance service for L&Q residents. Using the dynamic purchasing marketplace puts tenants in the driving seat, appointing local professionals alongside our existing teams."

The DPS Marketplace framework was designed through an extensive OJEU procurement process so that other housing providers can save time and up-front procurement costs. The solution is available to housing providers, local authorities, ALMOs, the education sector and healthcare providers. With no licensing fees or subscriptions, it is free for any contractor to join.

Cem Savas, CEO and co-founder, Plentific said, "We're delighted to welcome L&Q onto this new framework. Our existing work with Peabody and Notting Hill Genesis has already proven the approach to be effective and we're excited now to offer in such an easy-to-procure manner for housing providers across the UK. We believe that it truly has the potential to change housing and social outcomes and put opportunities back into local communities where they belong."

Interview

Amazon Web Services in housing



Chris Masey, Account Manager – UK Public Sector & NPO,
Amazon Web Services

Housing Technology interviewed Chris Masey, Amazon Web Services' account manager for the UK public sector and not-for-profit organisations about what AWS offers housing providers, its working culture and how it sees technology in our sector innovating and changing.

What was the move from Orchard to Amazon Web Services (AWS) like, and how do they differ?

I spent a great five years at Orchard and worked with many wonderful housing customers on projects I am proud of. I was becoming very curious about cloud computing and the impact it was having across every imaginable business sector. I was keen to gain experience on the front line and help customers maximise value by moving to the cloud; AWS was a natural fit for me and it's been a great experience working with AWS customers in the housing sector during the past two years.

What does AWS offer housing providers?

We engage with housing providers in many different ways. From a strategic point of view, often the biggest challenges for organisations moving to the cloud are not technical, they're about people and culture. We therefore actively help housing providers' executive teams define a cloud strategy, commit to moving towards a cloud operating model and then support them as they start to build a culture for change.

We also help housing providers build a culture of innovation by applying the mechanisms which have enabled Amazon to continue to reinvent customer experiences and quickly launch new services and products. For example, we are currently working closely with ForHousing to deliver a re-imagined digital repairs experience which will reduce the volume of avoidable service requests into its contact centre. The concept was created and driven by ForHousing's business and data

teams where they used Amazon's 'working backwards' mechanism (where all projects work backwards from the ideal customer end state) to envision a new and frictionless customer experience.

This involves answering five key questions: who is the customer; what is the customer's problem or opportunity; is the most important customer benefit clear; how do you know what customers need or want; and what does the customer experience look like?

From a technical perspective, we understand the essential requirement of training 'builders' on the concepts of cloud to enable transformation. There are two functions in housing IT teams who are quickly becoming the trailblazers for cloud transformation and who have the opportunity to grow their own skillset, principally housing providers' infrastructure and data/analytics teams.

The infrastructure teams are vital in managing the underlying infrastructure for housing providers, even if the servers and network components are hosted in the cloud. The data/analytics teams, who right now might be managing multiple data silos and on-premise data warehouses, have the capability to help their organisations to democratise their data and leverage advanced AI and machine-learning services.

Our focus is on enabling these builders by giving them access to training and new technologies; we regularly run workshops, free training initiatives and technical

immersion days to help them get hands-on with our technologies.

What is the AWS culture and environment like?

The Amazon culture is really different. 90 per cent of what we build at AWS is driven by what customers tell us matters to them.

We are pioneers and we focus on hiring builders who are always looking at how they can reinvent customer experiences. In addition, we are unusually long-term focused; we're trying to actively build relationships and a business that will outlast all of us.

A great example of this is our focus on helping our customers save money. In the cloud, you just provision what you need, and if it turns out you need less, you give it back to us and stop paying for it. That variable expense is lower than what almost every company can do on its own because AWS has such large scale that we pass on to customers in the form of lower prices. In fact, we've lowered prices over 80 times since AWS launched in 2006.

A big transformation when migrating to the cloud is managing costs dynamically. Hence, we have lots of support available to help our customers manage this transformation. Cost optimisation is a key pillar in our framework that is used by our own solution architects and partners to migrate workloads to AWS. We also have many services baked into the platform to help customers monitor the cost of their AWS resources. We even proactively recommend cost savings to customers through our automated 'trusted advisor' service that is delivered as standard with any AWS account.

From an environment point of view, at the heart of every Amazonian's work are our leadership principles, which inform, guide and shape everything we do. It all starts with 'customer obsession' and working backwards from the customer problem.

I'd sum it up as a fast-paced, fulfilling and exciting working environment where we are super-focused on helping our customers solve problems and drive innovation with the cloud.

Is AWS seeking to replace the sector's existing housing-specific IT suppliers? If not, how is it working with them?

Our focus is on helping customers in the social housing sector leverage the latest cloud technologies to deliver new and innovative products to our market.

Which technologies is AWS betting on at the moment?

In the fullness of time, virtually every application will be infused with machine learning and AI, and most customers we work with are very interested in this area. In housing, machine learning and AI have the potential to transform our service models across a whole variety of use cases.

It has never been easier to collect, store, analyse and share data than it is today in the cloud, and that's because it's not only much more cost effective, but also because the analytics services available today change the possibilities. There is an opportunity here for housing providers to do more with data lakes which deliver a single data repository in the cloud that join all data types together (structured and unstructured) to drive deeper insights into our customers and assets.

From an IoT perspective, over the next 10-20 years it's likely that most companies' on-premise footprint will not be servers; those will almost all be in the cloud. Instead, their on-premise footprint will be connected devices, with billions of these connected devices in homes. The cloud is vitally important in supporting this transformation and we're already seeing some exciting software suppliers emerge with a housing focus, such as Homelync and Switchee, both of which are using AWS IoT services to monitor, collect and analyse data securely from smart devices in the home.

The last technology I want to mention is 'serverless' computing. In 2014, AWS pioneered the event-driven serverless computing space by launching AWS Lambda. The simplest way to describe the capability of serverless is enabling builders to develop solutions without ever having to worry about scaling, patching or managing any servers. A great example of its application would be Comic Relief, which realised an 83 per cent saving on its AWS bill by adopting serverless technologies to support its online donation platform.

What will the housing provider of the future look like in terms of technologies, business operations & IT teams?

The future of social housing will start with serving customers inside the home. Right now, service requests are generally reactive and involve tenants making a call to their housing provider's contact centre. I expect to see much more process automation where closely-connected communities will evolve and the customer experience will become largely digital and frictionless.

Housing providers' IT teams will need to manage the growing family of connected devices and support this type of operating model where IoT technologies will become central to how housing providers manage everything from customer services to asset management and care and support.

Who are your partners in the housing sector and what do they offer?

We have tens of thousands of AWS partners globally, many of whom work in housing in the UK.

Some examples include fast-growing software suppliers such as GasTag, Switchee, Homelync and Voicescape who are each using AWS to rapidly bring innovative products

to the housing market, while established partners such as Arcus Global and Rackspace have their own AWS practices to support customers with everything from infrastructure migrations and end-user computing to building cloud-based contact centres and new machine-learning services.

The HMS suppliers are also transforming in order to help their customers embrace the cloud. A good example of this is MIS Group. Just 12 months ago it created Incline-IT, a cloud migration and managed services organisation, which has since grown quickly, winning 15 new customers and migrated housing providers such as Housing Plus and Arches Housing to AWS.

Anything else you'd like to add?

Our focus is on helping housing providers to leverage the cloud to innovate, scale and drive down costs, regardless of where they are on their cloud transformation journey.

Whether it's understanding total cost of ownership for infrastructure migration, building a cloud strategy, moving Windows workloads to AWS, learning how Amazon innovates, defining a first proof-of-concept or training in-house housing IT teams, we're here to support you and we have the largest partner community that can help build virtually any application in the cloud.

Chris Masey is the account manager for the UK public sector and not-for-profit organisations at Amazon Web Services.

Arches Housing's business continuity with Incline IT's cloud

Working in partnership with Incline IT, Arches Housing has successfully completed the migration of its on-premise servers to the public cloud.

Seamus Harkins, data services manager, Arches Housing, said, "At 30-strong, we are a small team with big ambitions to develop 400 new homes across our region by 2028. Much of the funding for this growth has to come from reinvesting our surpluses. To see this materialise, we all need to work as productively as possible so that we can continue to be a lean organisation that delivers value for our tenants.

"A key part of facilitating high levels of productivity is giving our staff choice and flexibility. By mobilising our entire workforce, they can all be productive wherever they are."

Cloud was identified as an enabler for the company's objective to facilitate remote working as well as providing a sound foundation for future technologies, such as automated workflows, that could deliver further efficiencies.

Furthermore, because cloud removes the requirement for capital expenditure, is scalable and minimises the risks associated with on-premise setups, it also matched Arches Housing's focus on value for money and risk mitigation.

The project was originally planned and contracted before coronavirus struck; when the pandemic began unfolding, Arches Housing wanted the migration to be accelerated because it would enhance business continuity and enable a simple transition to home working. As a result, the six-week project was actually completed by Incline IT and Arches Housing within three weeks and enabled the housing provider's whole team to transition overnight to working from home.

Harkins said, "One of the biggest benefits we had in migrating to the cloud was that it allowed our wider

team to focus on our tenants when they needed our support more than ever. Our staff didn't have to spend time on the phone to our helpdesk getting set up to work from home – it all just worked.

"As for the IT team, we've been freed up from having to think about server maintenance, upgrades and all those other time-consuming tasks. Instead, we're working on more strategic initiatives for the organisation that will ultimately improve our tenants' experience and deliver efficiencies which support our growth programme.

"Looking ahead to further unpredictability and economic disruption, we're confident that we can rapidly adapt to different ways of working, thanks to the flexibility of our new IT system."

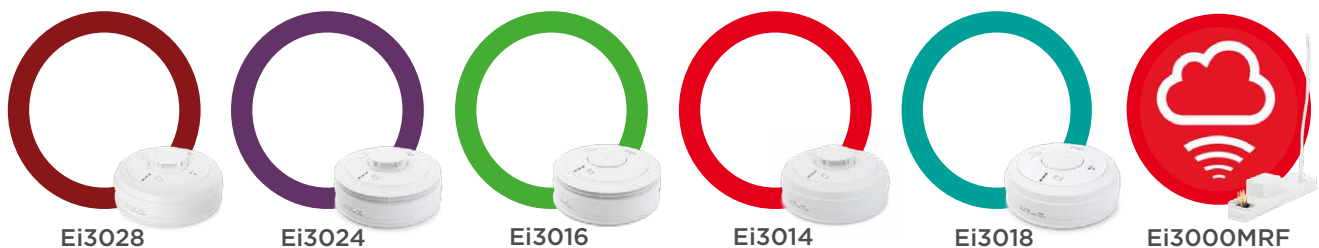


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Next-generation IoT in housing

Neal Hooper, Managing Director, Aico and Luke Loveridge, Chief Executive, Homelync



Neal Hooper, Aico's managing director, and Luke Loveridge, chief executive of Homelync, explain why Aico and Homelync have come together to create safer homes in social housing, the benefits of remote management and the future of housing.

Why have Aico and Homelync come together?

The internet of things (IoT) has been showing lots of promise for homes and cities, with McKinsey back in 2015 predicting these two 'settings' being worth up to \$2 trillion globally per year by 2025. The synergy between Aico and Homelync will bring forward the emergence of simple, scalable IoT technology within social housing.

Our housing customers all over the country are telling us about how they want to become more efficient by using IoT technology. Unfortunately for housing providers, there has been a slow uptake with too many barriers to entry. The McKinsey report also reported that up to 60 per cent of the value of IoT can only be realised by integration. We have many colleagues with extensive experience in the sector who have seen interoperability challenges leading to duplication and complexity.

“The synergy between Aico and Homelync will bring forward the emergence of simple, scalable IoT technology within housing. Our housing customers all over the country are telling us about their need to become more efficient by using IoT technology.”

Neal Hooper, Managing Director, Aico

The first step for many housing providers on this journey is to install our SmartLink Gateway which enables remote management of their fire and carbon-monoxide (CO) detection systems. When it comes to fire and CO detectors, there is no other brand trusted more than Aico, which can be seen by the number of partnerships we have with housing providers all over the UK. Homelync has decades of experience in software development and is a world-leading expert in data science. This combined with Aico's trusted brand, manufacturing excellence and market leadership position, greatly reduces the barriers to entry for housing providers thinking about investing in IoT.

The next stage in improving efficiencies through IoT will be achieved by increasing the sensor density within properties. However, once a home has multiple sensors in it, the true value and efficiencies are only seen through insights of aggregated data from thousands of sensors through the use of algorithms and machine learning – this is the value that Homelync will unlock. The coming together of Aico's world-class hardware and Homelync's innovative software will deliver the reality of efficiency from IoT to social housing.

What are the benefits?

Housing providers are looking for IoT solutions from trusted, reputable brands who have a proven track record in social housing. For these organisations, it's a huge risk to roll out hardware with a 10-year life into thousands of homes at huge expense when the business selling the hardware is still, in essence, a start-up.

Recent months have shown how vulnerable these types of businesses are to even a slight change in the economy



and global supply chains. Another consideration is that the majority of IoT devices are designed for the consumer market, with high data consumption and little or no options for the management of more than one property, never mind the thousands of properties within most housing providers' portfolios.

The benefits of this partnership are very exciting. Housing providers will be able to access the latest technologies from Homelync to address complex challenges such as damp and mould risks, indoor air quality, fuel poverty, optimising responsive repairs and energy efficiency programmes, while also benefitting from having leading fire safety technology, a trusted reputation for quality devices, wrap-around service, as well as the scale and stability of Aico.

Our customers have been installing Aico sensors in their properties for up to 30 years. Over this period, feedback from our customers has been essential in the development of the next iteration of our technology, ensuring we offer products which solve their problems. The acquisition of Homelync is no different. This will ensure Aico remains at the forefront of technology, bringing to the market a tailored scalable solution for social housing from a known brand with a proven track record of quality.

The potential benefits are huge. A Building Research Establishment (BRE) report estimates that the NHS could save over £1.4 billion per year by addressing 26 areas in housing, such as fire and carbon-monoxide safety and areas relating to indoor air quality.

The link between people's home and their health has been made clearer during the pandemic; a recent report from the Centre for Ageing Better showed savings of £4 for every £1 spent on making homes warmer.

“Homelync has decades of experience in software development and is a world-leading expert in data science. This combined approach with Aico’s trusted brand, manufacturing excellence and market leadership position, greatly reduces the barriers to entry for housing providers thinking about investing in IoT.”

Luke Loveridge, Chief Executive Officer, Homelync

We've also analysed historic repairs data; housing providers are spending a large proportion of their budgets on responsive repairs for damp and mould without including the hidden costs associated with customer contact, legal action and increased costs to planned works.

Our solution can help identify many of these issues, provide recommendations for action and monitor their impact. We've had up to 70 per cent reductions in mould risks and nearly 20 per cent reductions in indoor air pollutants with many of our housing customers. Overall, we've conservatively calculated our customers' return on investment (RoI) to be over £8 for every £1 spent.

How does the future look?

IoT is becoming mainstream, with fire alarms, environmental sensors and energy solutions leading the way, but with advanced water leak detection, virtual assistants, predictive maintenance, automation and much more starting to reach the right requirements and price points for the sector. Homelync and Aico can now offer a

future-proofed IoT platform for the home with these new devices and technologies easily integrated. This brings everything under one roof, offering true simplicity to a sometimes bewildering and complex ecosystem so that housing providers can avoid a complex web of 'simple' solutions which, in the long run, are anything but.

IoT technology within social housing is still in its infancy. Many of our customers are ready to start the first steps into IoT technology to validate the RoI for themselves. For all of them, the journey to full adoption is going to take a number of years.

The majority of our customers, however, are already part way into this journey, maybe without even realising it. Those who have been installing the Aico 3000 series smoke and CO alarms since their launch in 2018 have been installing some of the IoT sensor infrastructure required. At the start of 2020, Aico launched the SmartLink Gateway which enables data from these sensors to be accessed remotely, forming an IoT solution. This solution is already being implemented by many housing providers.

From speaking to our housing customers, common themes keep emerging. They want to ensure they are building an open IoT ecosystem, which is easy to retrofit and reports into one dashboard.

The platform that Homelync has developed will enable customers to build on the existing sensor and infrastructure already installed within millions of social housing properties, while enabling them to increase the sensor density within their properties.

This will then enable them to become more proactive and able to make better decisions around their asset investments, ultimately increasing their efficiencies while also increasing the standard of accommodation for their tenants.

Neal Hooper is the managing director of Aico, and Luke Loveridge is the chief executive of Homelync.



Why move to the cloud?

Meeta Patel, Marketing Manager, ROCC

Moving to the cloud can play a big part in accelerating your digital transformation programme, enabling you to harness a new suite of opportunities that can help elevate your people and processes. Cloud-based systems also offer the huge advantage of providing easy to implement disaster recovery plans.

We recently migrated a large housing provider to the cloud after it had gone through a merger and needed to unify its repairs and maintenance processes across the new organisation.

A key driver for the merger was to deliver operating efficiencies and increase financial strength and resilience, ultimately enabling the housing provider to increase its development capacity. The delivery of integrated, future

capable IT systems in the cloud has resulted in a stronger and more resilient organisation with a single source of data for all repairs and financial information.

Increased efficiency

The housing provider will increase its operational efficiency, particularly in relation to technology and costs. With the right governance and cost management



procedures, it will have the opportunity to be more cost-efficient, optimising its cloud spend and avoiding wastage.

Enable scalable growth

A key benefit of moving to the cloud is the ability to enable fast growth at scale. The housing provider will be able to scale up its systems easily as required, ensuring optimum application performance and efficiency combined with high reliability, irrespective of the scale. All of this will be at a lower cost than a traditional on-premise solution.

Reduced IT costs

The housing provider will reduce its in-house IT cost of managing and maintaining its repairs system so that it can focus on the job of delivering an optimum repairs service. ROCC, as its preferred software and infrastructure provider, is providing a fully-managed service covering both the application software and infrastructure.

Business continuity

A detailed disaster recovery plan was implemented so that the business will easily be able to carry on in the

event of an incident. The software and infrastructure will continue to run automatically and in accordance with stringent SLAs and a strategic business continuity plan. Furthermore, staff will easily be able to access data and applications from re-located offices or from home and on any device.

Proactive software & infrastructure performance monitoring

As ROCC has provided a fully-managed service, proactive server, software and database monitoring is conducted in real-time to ensure that the service delivered is fully optimised and available even during hardware upgrades and maintenance.

Meeta Patel is the marketing manager at ROCC.

Bron Afon appoints CNT for managed IT services

Central Networks and Technologies has been awarded a multi-year managed IT services contract by Bron Afon Housing.

Central's managed IT contract covers first-, second- and third-line support, with a member of the company's software engineering team seconded full-time to the housing provider's head office in Wales. The contract also includes multiple 'engineering days' each year when Central's senior engineers will design, plan and implement all of the housing provider's infrastructure projects.

Ian Taylor, head of ICT, Bron Afon Housing, said, "Central's engineers are among the best I have ever worked with. They really excel at what they do and actually care about our organisation. Nothing is too much trouble for them – they are always willing to provide advice and options."



Spotlight on CertOn

Boyd Goulden, Founder & Director, CertOn

CertOn is a multi-award-winning software company launched last year, founded from many years' experience in the new-build property sector around the issuing of certificates and manuals.

Our big idea was to be able to instantly find any important property document at any location in a building. CertOn centralises work outputs, enabling tradespeople and end-users to understand the maintenance history of a property easily and quickly.

CertOn uses QR code technology, an app and a portal to solve the perpetual problem of missing documents at properties which costs thousands of unpaid hours every year for everyone involved in property management. DLOs, contractors, housing officers and even tenants can scan the QR code on any asset to gain immediate access to all the documents, certifications and service records associated with that asset.

Our DTC (direct to consumer) product was the start of CertOn, receiving glowing reviews from numerous trade organisations at its launch. With the DTC product 'live', Broadland Housing saw the product's capability to help with numerous areas within social housing.

Gerry Claxton, technical services manager, Broadland Housing, said, "Our housing team have said CertOn could really improve how our tenants could access any documentation relating to their tenancies, and it would also aid our housing officers during the sign-up process for new tenants, where they could explain how to use the CertOn app, giving instant access to any service records or instruction manuals for appliances, for example.

"One area where there is huge potential to improve tenant safety is around fire safety. Our fire officer said that we could use CertOn to hold all information such as plan drawings, location of dry risers, service intakes, fire-fighting lifts, hydrants, fire alarm panel, ventilation controls and so on. This would be ideal for properties such as blocks of flats or sheltered housing where no staff are present 24/7 to aid the fire service.

"Our facilities team could use the system to keep all maintenance records for all housing schemes with service charges, enabling tenants at those schemes to check that all maintenance is being carried out as per their tenancy agreements.

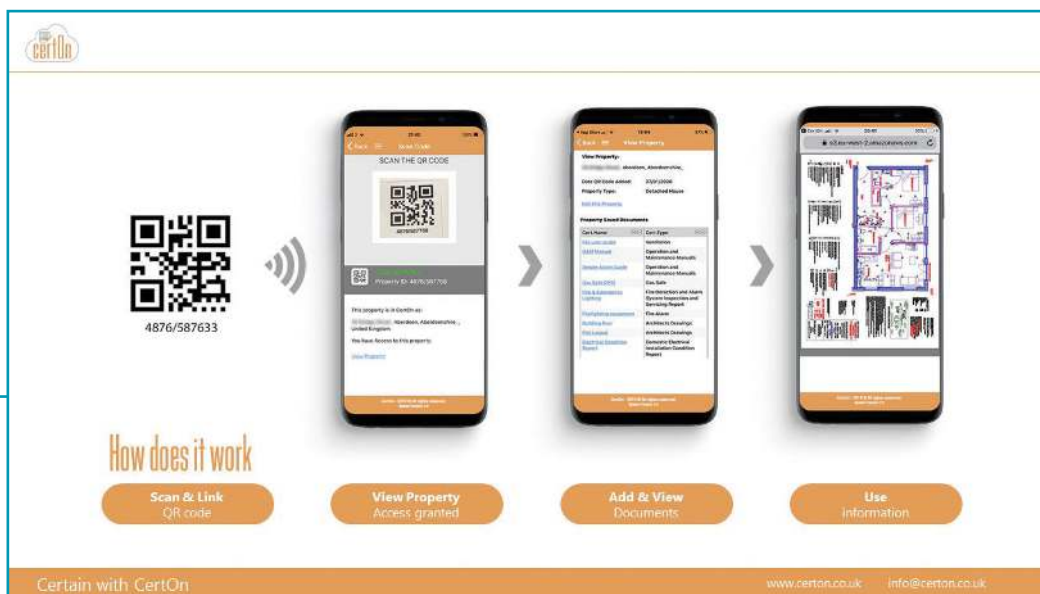
"Broadland Housing currently has to leave paper copies of gas- and electrical-service records with our tenants, but by using CertOn we would only have to issue those to tenants without a smart phone or to tenants who specifically wanted a paper copy, saving us the cost of purchasing certificates, printing and engineers' time.

"The main benefit would be to our repairs team and contractors because they would be able to easily access all relevant documentation relating to our properties, such as site drawings, asbestos reports and instruction manuals."

Following the success of our DTC product trial, our new social housing-specific product is due to be launched at the end of 2020 after working in partnership with Broadland Housing.

The main areas of savings from using CertOn include:

- Housing staff uploading/filing documentation to the correct properties;



- Easier administration for DLOs/contractors;
- Simpler and faster engagement for housing officers with their tenants;
- More 'first-time fixes' by DLOs/contractors;
- Better access to documentation for tenants;
- 100 per cent paperless.

Some of the social housing use-cases include:

- Housing: tenancy agreement, service records and manuals;
- Fire safety: plan drawings, location of dry risers, service intakes, fire-fighting lifts, hydrants, alarm panels and ventilation controls;
- Repairs and facilities management: maintenance records for tenants, DLOs and contractors;
- New builds: all documents and manuals for household appliances;

Operating as a standalone, cloud-based service running on Amazon Web Services, our social housing product has also been designed with the capability of adding APIs with housing providers' existing asset and housing management software.

A new feature in our housing product relates to communal areas. Any communal asset in a building can now have its own unique QR code assigned to it. For example, fire doors, lifts and fire panels/detectors can all have specific documents associated with them – contractors, housing staff and tenants just need to scan the QR code to see them. Another new feature is a reporting tool for tenants – tenants only need to scan the QR code on the defective asset in order to send a report to their housing provider.

In short, spot the CertOn QR code and you'll know that previously signed off and certified documentation and manuals are instantly ready to view. Our QR code stickers can be attached anywhere in a property, fuse boards, boilers, alarm panels, wherever is deemed necessary.

For a smart, paperless way to easily access your property documents, you can be certain with CertOn.

Boyd Goulden is the founder and director of CertOn.



Building pathways on data for better homes



Hermione Crease, Commercial Director, Purrmatrix

Whichever way you look at it, decarbonising the UK's housing stock is a gargantuan task. To meet the government's 'clean growth strategy' goals to move all housing stock to EPC 'grade C' by 2035 will require homes to be upgraded at a rate of one every two. That would be difficult enough if you were mass-producing identical products, but the wide range of housing stock and financing options for retrofit in the UK means a tailored approach to assessing and upgrading homes is needed, and RSLs are finding that the data they hold on their homes needs massive improvement.

Several housing providers who have already invested significant effort in developing energy strategies are seeing the problem at first hand. Lee Revell, innovation lead at Halton Housing, said, "Although we hold high-level asset data, it doesn't give us a reliable picture of the thermal performance of homes. Without robust data upfront, it can be difficult to identify which homes are in most need and which could be eligible for green funding without individual detailed assessments. So the question is, how do we get quicker and better at that process?"

It's widely accepted that, despite the best efforts around quality assurance, there are problems with energy performance certificates (only 3 per cent of responses to a recent consultation from BEIS thought that EPCs were reliable). But EPCs (and the SAP that underpins them) are still valuable as an audit of housing stock. They are likely to remain as the main benchmark by which progress is measured, so the pressure is now on to find solutions that enhance EPC and survey data to produce retrofit action plans which deliver reliably.

Measure building performance, don't model it

Part of the answer lies with better data from the homes themselves. An emerging range of solutions are using data from sources such as smart meters, retrofitted sensors, home monitors or thermostats to record the environment in homes.

Combined, these data streams can produce powerful, accurate measurements of a home's performance, including a direct measurement of heat-loss from the fabric of the building. The data can be collected as part of a standard survey, retrofit or EPC assessment visit using small suites of sensors which can be deployed in any home and which provide a robust figure for heat-loss, regardless of housing type or occupancy.

Linc Cymru is one housing provider considering the new approach. Linc Cymru's planned maintenance and compliance manager, Henry Simms, said, "Our ambition is to retrofit the majority of stock to SAP92 by 2030. We see our stock-condition surveys being evolved to include 'whole house' assessments by retrofit assessors; our existing approach is too focused on the condition of components and can miss fabric defects."

Direct measurement enhances SAP ratings by getting around the stubborn problems of hidden defects and defaults to key assumptions that can reduce confidence in the calculation. It also allows comparison of a home's performance before and after interventions to demonstrate which products have the greatest impact.

An emerging ecosystem

Better, faster measurements like these close the performance gap and go a long way towards making sure

that improvements deliver what they promise. It's also an underpinning technology that fits into a wider ecosystem of tools which promise fast, effective decision-making on energy-efficiency investments.

These tools have been available for several years but are now seeing rapid development as more housing providers establish their strategies for delivering 'net zero'. They include bottom-up tools, such as digital twins or data-led, on-site assessments, or top-down tools that mine existing data sources to identify segments of the housing stock that could benefit from specific measures.

Top-down or bottom-up?

Bottom-up tools start from a position of deep understanding of each individual home to build action plans to upgrade in line with a housing provider's strategy. EPCs are just the starting point for an exercise that involves detailed surveys and data-led diagnostics on each building's performance.

Sero Homes are developing such a toolset, Pathways to Retrofit, to support the mass decarbonisation of homes. Sero's toolset enables homes to be forecast into future energy-grid scenarios, using a fabric-first approach which allows them to be designed to both support and benefit from significant decarbonisation works at a grid level. The goal is to let the grid decarbonise more effectively while making the true decarbonisation of housing stock easier and cheaper.

Sero's co-founder, Andy Sutton, said, "Homes need to decarbonise quickly, but over a number of years, so the Pathways to Zero approach allows for coordinated interventions in a series of logical steps. This means upgrades and improvements at the end-of-life, not before, and in sequences that work with the residents and owners."

In contrast, top-down tools mine the wealth of data already held by housing providers to identify opportunities for groups of homes, providing a rapid way to test-drive a wide range of retrofit options. This is an important first step for turning energy strategies into action.

Parity Projects' business development manager, Liz Lainé, who provide Portfolio (formerly CROHM), said, "Net-zero goals have put more pressure on housing providers to develop appropriate phased plans for improvement. Using existing data can give a clear picture on what measures should be done first, plus their costs, and it can also identify cases where data is less reliable or the course of action is less clear, so additional assessments can be included as part of the programme of works."

Halton Housing's Revell said, "Technology is enabling us to be cleverer about where we spend to have greatest impact. This is a good thing because the money is getting tighter for everyone yet the requirements just get higher and higher."

Clear pathways for sustainability

A clear pathway is emerging for sustainability strategies among housing providers, with tools to inform energy strategy, prioritise opportunities and fit pathways for improvement to a range of future energy options. Driven by new types of data, such tools will help housing providers find the pathways to zero carbon and to better, warmer homes for tenants.

Hermione Crease is the commercial director for Purrmatrix.



A mould bomb is coming...



Alastair Thorpe, Commercial Director, Switcher

Usually, I am hesitant to write about issues that could be seen as a fear-mongering warning, but not in this case. There is a 'mould bomb' coming for every housing provider in the UK and unfortunately, it has teeth – 'Fitness for Human Habitation Legal Disrepair' teeth, to be specific.

Over the last two years, we've been studying and analysing a massive amount of property performance data. There is one clear trend in particular; there has been a huge increase in the average absolute humidity in the thousands of properties we monitor for UK housing providers. When we say huge, we mean it – there has been an average increase of 26 per cent in the absolute humidity across all properties. Looking at the data, the finger seems to be pointing to many more people spending a lot more time at home during the lockdown.

What does this mean for us as a housing provider or local authority?

It means more mould! The usual rule of thumb is that an increase in humidity in a property has a corresponding increase in the likelihood of condensation damp and mould. Of course, there is a mass of other factors involved in the spreading of mould, specifically relating to vapour pressure, temperature, dewpoint and so on. However, in general, high humidity will drastically increase the risk of a household experiencing mould.

Why have we had so few complaints about mould?

There's an interesting answer to this. Along with the lockdown, we have seen some pretty spectacular, dry and warm weather for the most part. This has been very pleasant for many of us (as long as we have adequate ventilation and the ability to open our windows) but this nice weather has been hiding a potential problem as we come into the colder months.

We can confidently predict that as the temperatures drop in October, November and December, the higher absolute humidity will turn into very high relative humidity. This will cause a massive increase in mould as households effectively create the perfect growing conditions for it. This will, of course, mean that the number of residents who report issues with mould in their homes will increase. This would be an issue at the best of times.

Unfortunately, there is also a heightened awareness of Legal Disrepair claims from residents and law firms who are well within their rights to sue housing providers for compensation and remedial measures to be taken (such as mould washes, ventilation installations, re-decoration, new heating systems, insulation improvements and new windows). It's likely to be a very challenging time for housing providers and their contractors, DLOs and legal teams.

What can we do about this 'mould bomb'?

Our first suggestion is to be proactive. Most housing providers are aware of the 'problem properties' that have logged multiple issues relating to condensation, damp and mould over the years.



You should also be aware of the 'problem archetype' properties that lend themselves to creating or trapping humidity (such as back-to-backs, dormers, solid walls, properties with recent insulation upgrades but inadequate ventilation). This is a great place to start. If you have this list, you can proactively contact your residents to check the situation.

In our case, Switchce has been sending digital stock condition surveys on behalf of our clients to ask about things such as visible mould (with response rates of 90 per cent within 24 hours). Once you know the properties with the problems, you can start to manage residents' expectations and start to log the positive steps you have taken to identify and solve the problems. Surveys have helped our clients detect potential disrepair cases before the lawyers got to them, giving the housing provider time to manage the situation in-house.

Responsibility for compliance

It's also recommended that you conduct ongoing monitoring of these problem properties and archetypes. Data shows us that roughly one-third of rented properties have some form of problem relating to condensation, damp and mould at any given time. If you aren't aware of them, that doesn't mean they are not out there. The idea that "we're not responsible for what we don't know about" is gone. Fitness for Human Habitation has changed that, making housing providers responsible for monitoring properties to ensure compliance.

If you have monitoring equipment or sensors in potential problem properties, you have a constant stream of useful insights and alerts relating to the health of the property. Having data live from your properties (such as resident behaviour, under/overheating, external weather factors, the performance of building fabric/insulation and heating system performance) allows you to best allocate your limited resources to get a quick and positive resolution for you and the residents.

So what you should be doing next:

1. Identify your likely problem properties now;
2. Proactively contact or survey those residents to understand their risk of mould;
3. Monitor the situation remotely through sensors or smart technology to help avoid complaints and legal disrepair costs.

Alastair Thorpe is the commercial director at Switchce

Connected tenants, and connected homes

Housing Technology interviewed representatives from Aareon, AdaptEco, Civica, Hyperoptic and Insite Energy about the alignment of omni-channel communications with smart/IoT-enabled homes to improve tenants' lives while helping housing providers' operational performance.

What should housing providers do for better communications and more connected tenants?

Aareon UK's head of digital, Tina Kennedy, said, "The number-one priority is good quality data. This is essential to enabling housing providers to communicate with their tenants better. Different communication channels need to be available, but those options only work if you have up-to-date information on contact details, preferences and what matters to each tenant."

"The second priority is providing self-service options. 'Connected tenants' who self-serve are typically much more engaged and best placed to keep their details up-to-date, resulting in better quality data and reduced costs to serve."

"Thirdly, empower your housing staff and contractors by mobilising them. The best service is provided by having your front-line staff at the heart of communities and connected with tenants. To do this, your people must be able to create and complete tasks in the field; working in real time wherever they are, with or without mobile reception, is a game changer."

AdaptEco's founder and CEO, Christian Geisselmann, said, "Tenants need to have a louder voice. Housing providers should therefore have an engagement strategy which includes working with and listening to tenants in order to continually improve their services, and keeping tenants informed about how their suggestions and views are being acted on, based on a multi-channel technology platform that is capable of covering tenants' widely-varied demographics."

Insite Energy's managing director, Anthony Coates-Smith, said, "First of all, keep things simple. That means not only using clear and straightforward language, but also ensuring communications are short, frequent and regular. It's much better to issue brief updates at regular intervals than long-winded, ad-hoc notices."

"Secondly, make the tone of your communications friendly and informative – companies such as Octopus



The number-one priority is good quality data, the second is providing self-service options, then empower your housing staff and contractors by mobilising them.

Tina Kennedy, Head of Digital, Aareon UK



Energy and Bulb have shown the value of friendly and engaging communications. Finally, encourage self-service by making all the information your tenants are likely to need easy to access digitally. For example, if you make information accessible via a browser rather than requiring tenants to download an app, you've instantly removed another communication barrier."

What bottlenecks do omni-channel communications and IoT devices remove?

Hyperoptic's senior director of business development, Liam McAvoy, said, "Omnichannel communications should be viewed as an opportunity and not a challenge. Research from the London Assembly in 2018 on how social housing tenants prefer to receive information found that 'digital tools can be used to reach residents who might not feel comfortable attending a formal TRA meeting'. Of course, digital engagement can't replace all the functions of face-to-face and resident-led engagement but it can be very complimentary to bolster overall engagement."

"The internet of things offers a number of opportunities for both tenants and housing providers, although IoT technology is still in its infancy; according to Housing Technology's own research (housing-technology.com/research), humidity and temperature sensors are by far the most widely-installed IoT devices at present, almost eclipsing the total of all the other IoT devices combined. However, the future looks very exciting – for example, Siemens has already started to put microchips into its white goods so that problems can be diagnosed before the householder is even aware of them."



Civica's product director, Helen Rogers, said, "The two main benefits of omni-channel communications combined with self-reporting networks of IoT devices are to reduce the number of repairs and engineer visits for tenants and better customer service combined with cost reductions in repairs due to early awareness of potential problems and more timely and less expensive planned maintenance programmes, rather than relying on periodic stock condition surveys."

Insite Energy's Coates-Smith said, "Today's consumers tend to trust digital solutions more than old paper-based methods. Omni-channel communications make interactions as convenient as possible for tenants, thereby removing old friction points."

"Giving housing providers access to data that automatically alerts them to problems such as fuel poverty, damp or faulty appliances means that they can respond to them faster and provide better support to tenants. For example, housing providers cite supporting their vulnerable tenants and reducing fuel poverty as the most important benefits of smart, IoT-based heating systems."



Channel shift is a vital element if you want to achieve better outcomes for tenants or internal financial savings, but where does that leave your more vulnerable tenants?

Christian Geisselmann, Founder & CEO, AdaptEco

How can housing providers encourage tenants to only use digital channels?

Aareon's Kennedy said, "The best encouragement to use digital channels is to make access secure and easy to use, with the content simple to navigate and up-to-date. The housing providers who have been most successful at this have aligned their processes to have automatic appointment booking, confirmations and up-to-date content, and widespread feedback supports the idea that tenants prefer digital channels because they don't have to wait or rely on office opening hours."

"For example, being able to raise a repair digitally is better for tenants because they can select the repair slot that's most convenient for them, which in turn significantly reduces the volume of 'no access' trips for housing providers' staff at the same time as increasing the number of first-time fixes."

AdaptEco's Geisselmann said, "Channel shift is a vital element if you want to achieve better outcomes for tenants or financial savings, for example. But where does that leave your more vulnerable tenants?"



In order to efficiently handle the volume of data arising from IoT devices and connected homes, housing providers' emphasis should be on managing that data 'by exception'.

Helen Rogers, Product Director, Civica

"We believe that to support your most vulnerable tenants when delivering digital transformation, you need to carefully consider how you approach this by supporting the accessibility needs of each individual, avoiding a 'one size fits all' approach, understanding the customer journey, and providing training and education where needed."

Civica's Rogers said, "Encouraging a 'digital first' approach by tenants is all about usability – quick, easy, bi-directional interactions that are integrated with your housing and asset management systems, combined with a range of flexible ways to interact depending on the type of request – some queries are fine to be handled via SMS whereas others might be easier or better via email, smartspeaker or chatbot. The important thing is to give tenants a choice of digital channels."

What are the benefits of IoT programmes?

Aareon's Kennedy said, "The whole community benefits when IoT sensors are used in areas such as communal walkways to monitor lighting, for example, because it keeps everyone safer and reduces complaints when lights stop working, particularly because most tenants will assume someone else has reported the problem when no one has actually informed the housing provider."

"With an IoT sensor, the housing provider gets an alert on their back-office software and a contractor automatically gets sent to fix the issue, often before anyone has the chance to report it or even be aware of the problem. The same early warning and rapid fix could also be applied to areas such as water leaks, burst pipes and malfunctioning lifts."

"To be truly valuable for both tenants and their housing provider, the data from IoT sensors needs to result in both short-term actionable insights as well as analysis to identify long-term trends and plan predictive

maintenance. The feedback from our housing customers confirms that this type of approach is a win for them, their estates and their tenants."

AdaptEco's Geisselmann said, "One of our digital care partners, iOpt, gives asset managers the ability to make smart, informed business decisions based on predictive and proactive maintenance rather than today's reactive regimes.



Encourage self-service by making all the information your tenants are likely to need easy to access – if you make information accessible via a browser rather than requiring an app, you've instantly removed another barrier.

Anthony Coates-Smith, Managing Director, Insite Energy

"Early warning about potential problems means healthier buildings and healthier tenants; IoT-based monitoring could cover areas such as fuel poverty detection, indoor air quality, damp, occupancy levels and vulnerable person monitoring."

Insite Energy's Coates-Smith said, "As IoT devices become more common, it will become the norm to automatically optimise energy usage through devices such as smart thermostats. Anything that reduces tenants' energy usage and housing providers' capital and operating expenditure brings down costs for all parties. Giving tenants access to data about their energy use has been repeatedly shown to reduce their consumption; we saw a 15 per cent drop in energy use at a large housing development in Croydon just from installing digital prepay displays.

"With greater visibility of consumption data, housing providers can make continual operational enhancements. For example, utility prepayment solutions can lead to a virtuous circle of eradication of debt risk and better cash flow, freeing up capital to invest in equipment and service improvements. This, in turn, results in a better relationship between housing providers and their tenants, with fewer complaints and points of conflict, resulting in less time spent firefighting and more bandwidth to focus on continuous improvement."

Measuring the results of 'connected tenants & connected homes' programmes

Hyperoptic's McAvoy said, "We have pioneered a focus on quantitative metrics that demonstrate the benefit of bringing enhanced connectivity to social housing properties. Earlier this year we unveiled our 'digital social value calculator' – by inputting a series of data points relating to your portfolio or borough, it can calculate an overall social value in GBP."

Insite Energy's Coates-Smith said, "Research by Secure Meters suggests that we are on the cusp of the widespread adoption of IoT technology in social housing,

with 80 per cent of professionals in the sector reporting they are currently considering it, and over half having already installed or trialled it in their properties. Of those, 35 per cent are using smart heating systems and 30 per cent smart meters."

Smart homes can generate huge volumes of data – how should that data be used?

Aareon's Kennedy said, "The data from IoT-enabled homes not only unlocks insights that couldn't otherwise be known without going into a property itself but also it effectively gives the property a brain and a comms link straight back to the housing provider. In turn, insights from this 'data torrent' can be used for scheduling preventative maintenance programmes instead of reactive repairs.

"Progress today is driven by data, but vast quantities of data can also lead to it being isolated and languishing in a plethora of unconnected business applications and even spreadsheets. As part of their digital agendas, housing providers need to ensure they have innovative data models to ensure that the solutions they choose will enhance both their housing portfolios and the services they can deliver."



The benefits of getting an increased volume of data from omni-channel communications and IoT devices is exactly the same as when companies adopted 'big data analytics' a decade ago.

Liam McAvoy, Senior Director of Business Development, Hyperoptic

Hyperoptic's McAvoy said, "The benefits of getting an increased volume of data from omni-channel communications and IoT devices is exactly the same as when companies adopted 'big data analytics' a decade ago. With real-time, trusted information, you can identify patterns, trends and needs in order to make more accurate data-driven decisions."

Civica's Rogers said, "In order to efficiently handle the potential volume of data arising from IoT devices and connected homes, housing providers' emphasis should be on managing that data 'by exception' – that is to say, using straight-through processing and automated workflows to minimise the amount of human intervention between, for example, the automatic reporting of a broken light in a communal area and the scheduling of a repairs operative to fix the light through to the reporting of its successful fix."

Housing Technology would like to thank Tina Kennedy (Aareon), Christian Geisselmann (AdaptEco), Helen Rogers (Civica), Liam McAvoy (Hyperoptic) and Anthony Coates-Smith (Insite Energy) for their editorial contributions to this article.



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What's your software really capable of?

Ken Fox, Head of ICT & Digital Services, Link Group

Strategy. A word that rarely gets people excited. A word that can strike tedium into the hearts of the dullest of the grey-suited ones. And yet, not only is it essential, but there is absolutely no need for it to hit those drab low-points.

We recently launched Link's new three-year digital strategy, having examined the achievements of our previous strategy and asking: what is our technology really capable of?

Internal innovation

It is an important question that many housing providers will be asking themselves, particularly at the moment. Understanding what our existing technology can really achieve (as well as its limits) is the key to opening the doors to internal innovation.

We hope that our new digital strategy will escape the 'dreariness trap' by creating a vision of the future for Link that is exciting and open to challenges. By acknowledging global disruptive factors, the advantages of the automation of work, the internet of things, mobile data and cloud-based technology, our strategy has an overall emphasis on horizon scanning.

Blockbuster vs. Netflix

We know that change is ever-present and everyone reading this piece will know the stories of those companies which didn't understand the impact of change, even when it was under their noses. There will always be a Blockbuster that didn't recognise the opportunity of faster broadband and there will always be a Netflix that takes advantage of that same technology. In reality, most businesses will fall somewhere in-between.

The 'adoption curve' is a warning to those too eager to adopt untested technology and formats (remember mini-discs?) but also a warning to those too late to the party, such as Kodak, the company that was the inventor of their own demise by way of the digital camera. Link is trying to position itself just after 'the chasm', where the early-mainstream adopters can be found and just at the top of that curve with the late-majority adopters, ready for the next innovation.

Link's reference architecture

At the heart of our strategy remains our reference architecture. This is a cohesive representation of the line-of-business applications, the ERP and productivity core, and the customer experience within the business and culture, and systems and technology environments.

From our reference architecture, our strategy is then based on six essential themes:

- 1. Customer experience** aims to treat customer interactions in multiple channels as part of a single unified experience (e.g. through text messaging, social media or chatbots) to make all interactions as easy and seamless as possible.
- 2. Digital facilitation** is a panoptic vision which encapsulates all aspects of service delivery to our customers, comprising five core values: access to devices; access to the internet; digital skills' development; engagement with the digital economy; and digital transformation.
- 3. Integrated ICT and digital services** aim to improve the provision of well-managed services by making them more integrated. It is the maintenance and continual improvements of all digital and ICT assets and aims to increase internal staff and customers' user experiences.
- 4. Security and compliance** are intended to consistently provide Link and its customers with continual assurance that all security risks are being appropriately managed.
- 5. Innovation** will take the process used by the Scottish Government's renowned CivTech programme and develop a similar model for Link's internal innovation.
- 6. Insight** seeks to make the best possible use of our data. It is essential that we obtain value from our data to ensure all levels of management have the insights needed to inform decisions and report accurately. To that end, data will be considered as a core asset just as physical properties are.

We are at the beginning of a new three-year course, charting our way through the choppy waters of uncertainty and opportunity. And with that, the days of dull IT strategies should be at an end.

Ken Fox is the head of ICT and digital services at Link Group

Lioness joins Housing Technology's recruitment programme

Housing Technology is very pleased to announce that Lioness Recruitment has joined us as a recruitment business partner for 2021.

Lioness.

**HOUSING
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recruitment

Jennifer Shorten, director, Lioness Recruitment, said, "When we started trading towards the end of last year, we knew that our first year would be tricky but we could have never guessed it was going to be quite as tough and unpredictable as it's been!"

"However, despite all the problems of coronavirus and a very turbulent economy, we've kept going – with the support of some fantastic housing

clients and candidates, we have actually had a very productive 12 months.

"We've helped with a variety of projects including several HMS implementations and assisted numerous clients with salaried vacancies, including an RSL with its business transformation programme and a London Borough with an asset data project.

"We've found that the job market has really picked up in the past couple of months and now our client base has a diverse mix of businesses, ranging from small housing providers to G15 members, and from local authorities to specialist software houses and consultancies."

Find out more at:
jobs.housing-technology.com

Illumar tackles housing's data challenge

Business services' provider Inprova and Insource, a healthcare data automation specialist, have set up a new venture, Illumar, in order to help housing providers unify data from disparate systems, improve data quality and increase the adoption of common data standards.

The collaboration is based on technologies developed for the healthcare sector combined with social housing knowledge, resulting in the Illumar enterprise data management platform which is intended to help housing providers appreciate their data as an important business asset.

Steve Malone, managing director, Inprova said, "Working with over 900 housing providers, we see the data challenges that housing providers face on a daily basis. Through collaboration, we've created Illumar, which is 'platform neutral' regarding core housing systems, bringing information together in a unified data layer. This will enable housing providers, regardless of their existing systems, to use a standard approach rather than each developing their own expensive in-house systems."

Steve Aitken, chairman, Insource, said, "There are many similarities between the healthcare and housing sectors



in terms of their data requirements and how they need to be managed, and we have already demonstrated how the lessons learnt in the complex data ecosystem of the NHS will help resolve data problems in housing."

The two sides of IoT in housing

Michael McKiernan, Director & Co-founder, BRS Technology



When you look at the possibilities of what the internet of things could offer social housing, it's nothing short of miraculous. Not only would homes be healthier and better maintained, but there would be a lot less stress for both housing providers and their tenants. Furthermore, if the data was shared responsibly, architects, urban designers and numerous other groups of people could use the data to design a better future. But where could we get to – what is the ultimate potential here?

A better life for tenants

Central to all IoT projects should be the realisation of a simple truth: making homes better for tenants and housing providers. Good IoT should make both sides feel reassured and provide feelings of safety and comfort. For the tenant, that's about knowing their house is healthy, safe and secure; for a housing provider, it's about knowing their properties are up to standard, repairs can be flagged up and the property is in a good, cost-efficient state of maintenance.

It could be a fascinating vision where, one day, there's a more or less autonomous system where IoT sensors, thanks to the data that has been gathered and analysed, predict that something in the home is going to break and not only orders the replacement part but can work out when to send someone round to carry out the repair at a time that minimises inconvenience. But we're not there yet. There are endless concepts for where IoT sensors could carry out work. Air quality sensors, like those offered by BRS Technology, can detect temperature, moisture, damp

and environmental issues while there are systems that can also monitor boilers, water and sanitation systems and even lifts.

Again, in the future, these things will be repaired at times most residents won't even notice, minimising disruption. No more waiting weeks for a boiler repair or lift repair when the data can work out in advance when the breakage is likely to happen and arrange for repairs to take place at times of minimal disruption.

Ready for adoption

So far, the concept of sensors in homes has generally been widely accepted. Homes have detectors for carbon monoxide, smoke and fire, with some countries now moving on to integrated systems.

Furthermore, many homes have enthusiastically taken up Alexa, Google Home or Apple HomePod devices, which are themselves essentially data-collecting IoT devices, even if they aren't labelled as such. Additionally, as these devices have proliferated, people have become used to the idea of wi-fi controlled lights, kettles with Bluetooth connections and so on.

Also, informed people want to have the best materials that make their homes safe and secure. It's now commonplace for tenants to do research on the energy rating of a home, and it's not a stretch to think that in future they will also expect data on other items like internal air quality and potential moisture/damp issues.

People are becoming comfortable with the idea of the connected home and how it works. But being comfortable with the concept doesn't necessarily mean people will accept the reality once the implications set in.

A better future, but for who?

For example, consider a sensor that monitors audio levels. What happens if it persistently detects too much noise in a tenant's home? What legal responsibility is there in that

situation? Noise complaints are one of the most common reasons for police being called to social housing, so what happens when there are sensors that can detect, in essence, noise pollution? Could that sensor be used as evidence against the tenant? And if the sensor detected high levels of external noise, could the tenant use the data as the basis for demanding that their housing provider upgraded their home to make it more soundproof?

As another example, could an air quality sensor be used to detect the presence of drugs such as cannabis in a property?

Similarly, what happens if a sensor detects that there are too many people in a house? As we deal with coronavirus and future outbreaks or lockdowns, could we see sensors being used as a way of enforcing how many people are in a home?

Today's pertinent questions

It's now routine for car insurance companies to insist on cars for young drivers having black boxes fitted. Could home sensors be a new version of that, where new tenants have no choice about having the sensors installed? Equally, might sensors become a legal requirement? And will that bother tenants or will they be comforted by the thought?

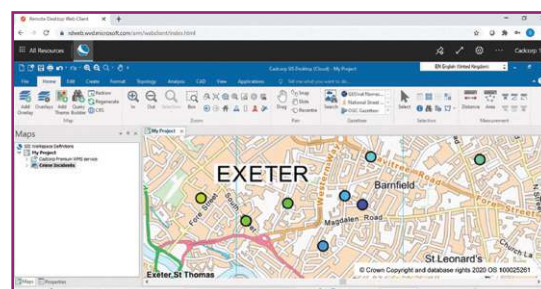
And what about housing providers themselves? While we might hope that sensors will usher in an era of well-maintained properties, what happens if the sensors detect an abundance of properties needing updates and repairs? It will be a lot harder to hide work when the data is there for all to see. Will a rush of repair jobs see a price hike for tenants?

And one final question – who will own the sensors' data?

Michael McKiernan is a director and co-founder of BRS Technology.

Cadcorp launches cloud-based desktop GIS

With the widespread adoption of cloud technology, Cadcorp has extended its cloud services to include its SIS Desktop product.



In the current circumstances, one significant benefit of using SIS Desktop in the cloud is increased accessibility; Cadcorp reported that it's quick and easy to set up for remote and flexible working because no specialist hardware or resources are needed. Users can access SIS Desktop as a virtual desktop application or within a web browser on a variety of platforms and on any device.

The SIS Desktop cloud service includes support, cloud storage, hosted map data and an application health check with monitoring resources. SIS Desktop in the cloud integrates with other online services and is maintained and upgraded by Cadcorp to keep it current with the latest software service releases. Cadcorp is also offering a cloud migration path for customers to

migrate their existing on-premise SIS Desktop licences into the cloud.

Nick Summers, technical services manager, Cadcorp, said, "In the current situation where GIS professionals are working remotely, accessing software in a cloud environment is ideal. Where GIS technology is housed on-premise, some users may find access slow or limited. Delivering SIS Desktop in the cloud will help housing providers to maximise their mapping and geospatial productivity."

Aico partners with SECTT for fire training

Aico has teamed up with the Scottish Electrical Charitable Training Trust (SECTT), with Aico delivering Fire Industry Association-accredited CPD training to apprentices throughout Scotland.

After taking part in an Aico Expert Installer training session at Motherwell college, SECTT training and development manager Barrie McKay said, "Aico has been fantastic with us and is always keeping us up to date – some of the new developments are ground-breaking and really exciting, so it's great that the apprentices will learn all about standards, legislation and all of these new technologies coming through."

Tony Boyle, regional specification manager for Central Scotland, Aico, said, "I can't speak highly enough of the work that SECTT do and it's exciting to be working in partnership with them. Having been through the SECTT apprenticeship scheme myself, I know first-hand how important it is that apprentices are working with the right products to do the job properly."

The partnership will provide first- and second-year electrical apprentices with training on alarm selection, siting, installation, standards and legislation and new technologies. Aico alarms have been distributed to SECTT's assessment centres in Edinburgh, Glasgow and Aberdeen to give practical, hands-on training to apprentices.



Aico becomes an EIC champion

Aico has announced that it is now an Electrical Industries Charity (EIC) champion. As an EIC Champion, Aico is helping to support the only charity specifically for people working within the electrical industry and their families.

Aico and EIC have joined forces to help educate and increase understanding of mental health awareness with virtual, online training. These sessions will be run by a qualified EIC trainer and aim to provide an understanding of what mental health is, knowledge on some common mental health issues and challenge the stigmas associated with mental health.

Neal Hooper, managing director, Aico, "The Electrical Industries Charity is more important than ever, especially with mental health support during this pandemic. Becoming an EIC champion means we can help in every way we can, such as facilitating mental health awareness training."

Johnnie Johnson Housing appoints Mediaworks for 'digital first' plan



Johnnie Johnson Housing has partnered with Mediaworks to deliver a new digital-first approach for its tenants and partners.

Emma Midgley, head of transformation and communications, Johnnie Johnson Housing, said, "With more customer touchpoints happening outside office hours, and with considerations around social distancing for vulnerable residents, the demand for self-serve options is increasing. By introducing

more digital technologies and allowing our tenants to log issues and incidents remotely, we'll be able to free up our people's time to give greater focus to our front-line services.

"During the procurement process, Mediaworks stood out because it was

willing to challenge us to go beyond the original scope of the project and push our digital aspirations. As a partner, Mediaworks' data-driven and user-centric approach in its existing work in our sector made it clear that it would be a strong addition to the partners we already work with."



TrueCue partners with Simpson Associates

TrueCue, a division of Concentra Analytics, has joined forces with Simpson Associates, a leading data analytics consultancy, in order to give its customers access to TrueCue's highly scalable SaaS data warehouse automation solution.

Giles Horwood, managing director, Simpson Associates, said, "Today's housing providers are handling vast amounts of data, often from disparate sources. But even with data management systems in place, many of them still struggle to interpret and gain the actionable insights needed to support their decision-making. By working with partners such as TrueCue, we can help housing providers understand and resolve some of their most complex and common challenges, ultimately enabling them to make better informed decisions."

"TrueCue's Platform really stood out as a complementary component to what we are already offering to our customers. With an automated platform, it offers our

customers a simple and cost-effective option for delivering a robust and scalable cloud data warehouse platform."

James Don-Carolis, managing director, TrueCue, said, "The TrueCue platform has been designed and built to automate Microsoft's data services within Azure, meaning partners such as Simpson Associates can now really accelerate their analytics solutions."

"When passing these benefits on to customers, it means they can capitalise on having faster access to a complete end-to-end analytics solution to address business challenges not just departmentally but companywide."

Infoboss inks partnership with 3C Consultants

Infoboss, a specialist in automating the management and processing of data, has teamed up with 3C Consultants to deliver high-quality data management solutions to the consultancy's housing customers.

Mark Hobart, managing director, Infoboss, "Accessing and managing reliable, trusted, accurate and compliant data is vital to the success of every organisation. We understand data quality improvement is not a 'point in time' event and involves all data stakeholders. Infoboss helps clients achieve success with a

simple, search-based interface that empowers data owners and automates the task of validating the integrity of data across one or multiple systems."

Gary Clark, head of data services, 3C Consultants, said, "With lockdown demonstrating that changes in operating models are eminently achievable, quicker and

more agile organisations are asking themselves, what next?

"Getting their data in great shape is a natural first step before new systems or transformations takes place, and with Infoboss and 3C working in partnership, ambitious plans can become a practical reality."



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