

**HOUSING
TECHNOLOGY**

internet of things

SEE PAGE 46

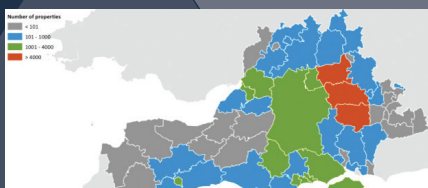


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GENESIS HOUSING'S 'HORATIO THE PLANT' AND THE IoT
Page 44

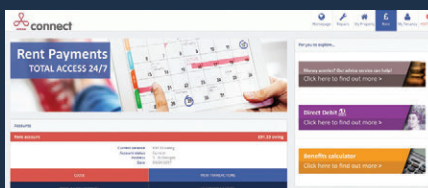


SOVEREIGN'S ENTERPRISE GIS
Page 12

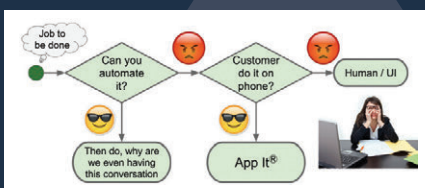
**THE DATA
REVOLUTION
AND BUSINESS
INSIGHTS IN
HOUSING**
Page 32



**BOARDROOM
PERSPECTIVES -
MOAT**
Page 38



**ADACTUS HOUSING'S 1ST TOUCH TENANT
PORTAL**
Page 17



**DATA - FROM CONNECTIONS TO
PROJECTIONS**
Page 10

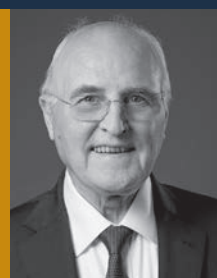


**THE INTERNET OF THINGS IN HOUSING
2017/18 REPORT**
Page 43

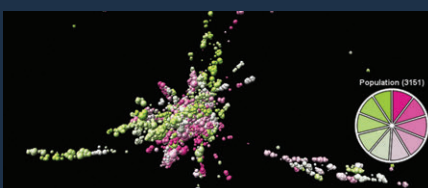


**ESTATE REGENERATION WITH
COMMONPLACE**
Page 06

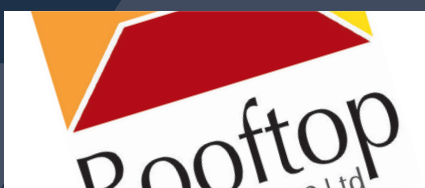
**INTEGRATOR
HOUSING
SOLUTIONS -
30 YEARS OF
HOUSING ASSET
MANAGEMENT**
Page 16



**WALSALL HOUSING GAINS INSIGHTS
WITH CLEARVIEW**
Page 08



TOPOLOGICAL DATA ANALYSIS
Page 34



ROOFTOP HOUSING OPTS FOR AAREON HMS
Page 03

EDITOR'S NOTES

Got a vacancy or looking for a job?

Housing Technology's new recruitment service is now live; have a look at www.housing-technology.com/recruitment.

HOUSING
TECHNOLOGY

recruitment

It's still in its early stages, but as part of the introduction of this new service, all Housing Technology subscribers and their respective HR/recruitment teams can post their job vacancies and recruitment listings on our site at no charge and with no 'finder's fees', as well as view available vacancies.

The internet of things in housing

As mentioned in the last issue of Housing Technology, we are about to start work on our 'Internet of Things 2017/18' report (see page 43).

The report will feature brand-new, exclusive research and a survey of how housing providers anticipate incorporating the internet of things into their operations, as well as case studies and articles from housing providers and IT suppliers who are already ahead of the curve with the internet of things.

Please email alastair@housing-technology.com if you would like further information on the report and how you could contribute to it.

HOUSING
TECHNOLOGY

internet of things

THE INTERNET
OF THINGS IN
HOUSING

2017/18 REPORT



SECTIONS

HOUSING MANAGEMENT

PAGE 03

FINANCE & ASSET MANAGEMENT

PAGE 13

CUSTOMER MANAGEMENT

PAGE 17

DIGITAL TRANSFORMATION

PAGE 28

INFRASTRUCTURE

PAGE 35

BOARDROOM PERSPECTIVES - MOAT

PAGE 38

GENERAL NEWS

PAGE 40

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ROOFTOP HOUSING OPTS FOR AAREON HMS



Aareon's QL software has been chosen by Rooftop Housing Group as its new housing management system, with support from Alysium Consulting.

Following an internal review, Rooftop Housing engaged Alysium Consulting to help them during the process of specifying requirements and procurement, managed through a 'competitive dialogue' route.

Lesley Buckels, lead consultant, Alysium Consulting, said, "This is a

very exciting project that will transform the customer journey at Rooftop and one which will enable Rooftop to benefit from the digital opportunities of this partnership with Aareon."

Rooftop Housing was keen to explore opportunities to reduce the number of applications it used or where integration was less effective than expected and so used the tendering process to also consider alternative options for some of its other solutions.

Some of Rooftop's key objectives were to get 85 per cent of all transactions and communications being completed online, including pre-tenancy checks, online direct-debit capability, rent enquiries, repair ordering and complaints, to resolve 75 per cent of customer requests during the first point of contact, and make customers' personal information and history available to staff wherever they are working.

The Rooftop Housing's total package comprises Aareon QL Housing, Aareon QL CRM and Workflow, Aareon 1st Touch Mobile, Aareon 360 Tenant portal, EDRM, Keyfax and Locator Plus.

Teign Housing takes Civica for housing & asset management

Teign Housing has chosen Civica's Housing Cx and Keystone asset management software to manage its property assets and improve customer service.

Via implementing a web-based system with CRM, housing and asset management, Teign expects to enhance customer service by delivering a complete view of both its tenants and their properties, including on mobile devices.

Karen Johnson, head of customer and corporate services, Teign Housing said, "We are an ambitious, forward-thinking housing provider with a comprehensive digital agenda, and aim to provide a customer service experience close to that of the commercial sector.

"To achieve this, we needed an easy-to-use system that was intuitive, so employees could access tenant information quickly and easily; after

reviewing the market, we chose Civica Housing Cx and Keystone asset management solutions."

The combined Civica software will be used by the housing provider to manage most of its operations, including contacts and assets, CRM and communications, rent arrears and voids management, repairs, planned maintenance, servicing and inspections, complaints, and self-service portals for both contractors and tenants.

Abritas now fully integrated into Civica
Civica has announced that it has completed the integration, re-naming and re-branding of the former Abritas business into its operations following the company's acquisition at the end of 2016. The move consolidates the group's portfolio of housing, repairs and asset management software under the Civica name. Combining the specialist expertise

of both companies, Civica said that it now has more than 400 customers in the sector, supporting services for five million tenants.

Alongside Civica's broader product and service portfolio, the business will continue to develop the software applications produced by Abritas for tenants' housing needs, options and lettings services.

Jeff Hewitt, executive director for housing, Civica, said, "Together with Abritas, we have established a market-leading capability in the housing sector. Our integrated offerings are helping housing providers to deliver improved tenant services and greater efficiency and we are committed to helping housing teams respond to a changing landscape and evolving customer needs through modern technology and automation."

COMPANIES IN THIS ISSUE

1st Touch **04 & 17**
Aareon **03 & 05**
Adactus Housing Group **17**
Agile Business Consortium **40**
Alysium Consulting **03**
Appello **17 & 36**
Asra Housing Group **29**
BT **46**
Capita **05 & 18**
Castleton Technology **18**
Civica **03**
Clearview **08 & 26**
Commonplace **06**
Derby Homes **05**

Engage Property Technology **20**
Etive Technologies **28**
Flagship Group **18**
Genesis Housing Association **44**
Good Things Foundation **24**
Greensquare Group **32 & 37**
Guinness Care **17**
illumr **34**
In4Systems **13**
Integrator Housing Solutions **16**
Invu Services **09**
Liverpool YMCA **18**
London Borough of Southwark **15**
M3 Housing **23**

Magenta Living **13**
MHR **14**
Moat Housing **38**
Mobysoft **37**
Northgate Public Services **15**
One Manchester **08**
Orchard **10 & 30**
Oxford Data Consultancy **45**
Rant & Rave **18**
Rooftop Housing Group **03**
Scottish Borders Housing Association **18**
SDS **05**
Sigma **21**
Soha Housing **22**

South Lakes Housing Association **23**
Sovereign Business Integration Group **35**
Sovereign Housing **12**
Switchee **46**
Tai Calon Community Housing **26**
Teign Housing **03**
Thrive Homes **35**
Viridian Housing **25**
Walsall Housing Group **08**
West Dunbartonshire Council **37**
Your Homes Newcastle **40**



FOLLOWING THE 'DATA ADVENTURERS'

Greg Johns, CEO, 1st Touch

At 1st Touch, we have always been committed to integrating the latest technology trends for the benefits of our customers. These include technologies such as the internet of things, digital by default, frictionless computing and big data. We look at them in their own right and we also study how others use them. This allows us to explore how we might integrate the smarter aspects of these technologies into our own systems.

Of these, big data is particularly exciting in terms of the potential it offers both housing providers and their tenants. The clever part though, is understanding how to translate this technology into driving positive change in the social housing sector. The good news is that there are some leading figures who seem to understand the tremendous opportunities available and who can articulate both the science and processes involved.

Presenting with me at the recent Housing Technology 2017 conference was Brian Moran, the deputy chief executive of Adactus Housing Group. His expertise regarding Big Data is both widely acclaimed and deeply respected.

In his presentation, 'Adventures in Data Science', he summed up the benefits of big data as he sees them, providing a useful insight into how data science drives some very key deliverables – it's an insight that bears serious scrutiny.

In Brian's view, big data is 'statistics on steroids'. The rapid growth of this technology is partly explained by the massive recent increase in computing processing power and also the augmentation of data by clever use of algorithms. These algorithms can

approximate solutions on problems which many used to think were impossible to solve. In practice, the science of big data is a team sport combining business 'domain' knowledge with good maths and stats skills, alongside programming expertise, plus an excellent understanding of machine learning.

In terms of what big data science can do, there are two main categories – descriptive techniques and predictive techniques. On the descriptive side, these can be summarised as pattern discovery and clustering. On the predictive side you have forecasting and classification. Somewhere between these two categories are simulation techniques which allow you to look at possible future scenarios.

There are many business and consumer applications now benefitting from these techniques. Indeed, as Brian points out, big data is now pervasive in everyday life. You can see examples of it if you use a satnav, make a Google search, use Netflix or submit a credit card application. However, both my and Brian's point of interest is to discover how this technology can deliver interesting applications in social housing.

Well, the three main areas that big data applications can help with are:

- Better services: by improving client satisfaction and automating processes;
- Better control of risk: by managing costs and improving levels of productivity;
- Better business planning: by scenario analysis, making cashable savings, reducing costs and increasing revenues.

For better services, one can look to frictionless self-service applications as one example. So, through our own self-service tenant portal and apps tenants can request repairs, report problems such as ASB or estate issues or check their tenancy agreement. They can do this from the comfort of their own home, using their own device 24/7. Customers can now book appointments using our iAppoint module; these appointments are then automatically confirmed back to them by text with details of the operative visiting and the registration of their vehicle.

The big data helps make these services friction-free by helping to reduce the number of touch points between contact and action. In many ways, this reflects the ethos of global players such as Amazon, which has used big data analytics and behavioural research to introduce one-click ordering and the like.

In a similar way, Adactus itself has created a model to streamline its online service delivery. Using machine-learning techniques, their system analyses a customer's query for keywords such as 'wet', 'pipe', 'leak', 'taps' before making a prediction that a plumber is needed.

Adactus also uses clustering through 'HDBSCAN'. Here, machine learning looks at data to identify clusters of customers with similar needs and requirements. This, along with pattern analysis enables better targeting and segmentation of services and offerings.

Big data also allows Adactus to control risk better. They achieve this through both pattern recognition and anomaly detection. By reducing risk, its management team can focus more on

FOLLOWING THE 'DATA ADVENTURERS'

Continued from previous page

improving services and managing the business better.

Overall, by combining all these benefits, big data allows organisations such as Adactus to plan better for the future. This has real benefits. It boosts value for money, efficiency and customer services while also driving down costs.

At 1st Touch, we have also looked at how the data can be used for different groups. So through our 360° system, we can combine all of the relevant data relating to a tenant, tenancy, property and estate

onto a single integrated screen. While visiting a customer, the system allows a housing manager to use their device to book a repair or for a gas operative to report an ASB or estate issue.

By making operatives multi-functional and frictionless, it reduces the need for separate visits by each organisational silo. This greatly saves time and cost and is received extremely well by tenants. It can also reduce the recruitment of staff to fill the posts and with fewer staff, there is the opportunity to reduce the amount of office space required too.

Looking to the future, big data will continue to drive service and customer care and, combined with technologies such as artificial intelligence, will deliver even greater efficiencies. True, it requires an initial investment to unlock the potential but when it comes to delivering improvements, it's a small price to pay for bigger services, bigger customer ratings and bigger cost savings.

Greg Johns is CEO of 1st Touch.

Derby Homes migrates to OpenHousing

Derby Homes is migrating to Capita's OpenHousing platform, having used an earlier version of the software provider's housing management system since 1996, as well as its OpenContractor software for contractor services, repairs and maintenance.

The migration to OpenHousing will include the implementation of new functionality including enterprise-wide mobile working, contractor and customer self-service portals, and workflow.

Maria Murphy, managing director, Derby Homes, said, "The migration to OpenHousing will be a great move for us in

improving the efficiency and management of our business. We're looking for a single, fully integrated solution that will allow us to achieve a single version of the truth across our various teams and customers, and with OpenHousing we will be able to achieve this.

"Having been a Capita customer for many years, we feel the move from one Capita platform to another will be a straightforward one, the ease and manageability of which definitely factored into our decision-making, as disruption to our staff is definitely something we're keen to keep to a minimum during projects of this size."

SDS TEAMS UP WITH AAREON IN THE UK AND NETHERLANDS

SDS has signed bilateral reseller agreements with Aareon UK and Aareon Netherlands.

Aareon UK will now include the SDS software as part of its tender submissions and provide ongoing support for existing clients in the UK and the Republic of Ireland. For its part, SDS will generate leads for Aareon among its 315 clients across the UK, including 40 local authorities.

Aareon Netherlands will lead the introduction of SDS products initially into Dutch 'woningcorporaties' (social housing providers) to help plan and manage their housing development and construction activities.

The SDS software will be offered via the Aareon Smart World portal or as an on-premise solution to customers in The

Netherlands, Germany, Sweden, France, Norway, Denmark, Finland and Austria. SDS and Aareon UK will support Aareon NL with the introduction of their treasury management system and business planning software into the UK market.

As part of its focus on the Dutch housing market, SDS collaborated with the Department for International Trade, which works to promote UK exports of goods and services.

Tom Fourcade, export and investments director for Southern England, Department for International Trade (DIT), said, "The demand for UK services is out there and SDS is a great example of a business that has found success through exporting. This is a transformative win for their business, and we are delighted to have supported them on their export journey with bespoke advice, research and market introductions."

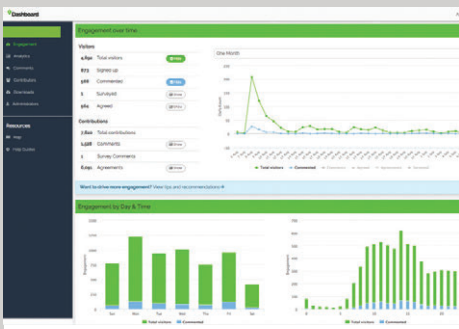


ESTATE REGENERATION IS PART OF THE 21ST CENTURY - LET'S MAKE IT FEEL THAT WAY

Mike Saunders, CEO, Commonplace

Commonplace was recently included in the London Mayor's good practice guide for estate regeneration, which gives us genuine pride. But more importantly, it indicates that times really are changing. More and more frequently I hear acknowledgement and even genuine enthusiasm from councils, property developers and housing providers about the need for communities to be at the centre of estate regeneration. And it feels like more than a passing fad for three important reasons:

1. Residents can no longer be removed from the nub of the discussion, because they have an array of online tools to protest if they feel marginalised. In addition, they are emboldened by sophisticated campaign groups such as ASH.
2. The political and professional mood is changing, spurred by leadership from the London Mayor and encouraged by evidence from think-tanks such as Create Streets and respected practitioners such as Daisy Froud.
3. The scale of the impending house-building requirement is sinking in, and it's clear that to achieve anything near volume needed, developers need residents to be supportive (which was underlined in Centre for London's recent report, 'Stopped').



The mood music is starting to embrace the idea that high-quality, inclusive community engagement is fundamentally necessary for successful estate regeneration. Housing providers will argue, some with good reason, that they have always worked to this principle.

What I think is changing is the meaning of 'high quality, inclusive community engagement', 17 years into the 21st century.

I believe there are three elements to this changing definition of quality. All of them are for the better and are now becoming de-facto best-practice.



First, residents and local communities must be a central component of all processes designed to establish the objectives of a regeneration project. Their views are often not sought until there is a proposal, or set of proposal options put forward. In our experience, it is already too late to conduct meaningful engagement if there has been no prior discussion of substance about needs and objectives between the estate owner and the community. This necessitates an open conversation with residents about their views, needs, ideas and aspirations at the earliest possible moment in the project. I believe that a 'statement of community need' should be co-produced by the community and the owner at the very beginning of every project.

Second, transparency is fundamental to creating and maintaining trust in a regeneration process. Trust is famously hard to win and very easy to lose, and that has never been truer than in these projects. Ensuring that the process (e.g. timeline, events and decision points) is transparent to residents is relatively common. But making the community responses and insight transparent is much less common and leads to unnecessary loss of trust. Every comment made by a member of the

community should be available publicly, in order to demonstrate that nothing is being hidden. Taking anything but this approach creates friction that tends to result in the breakdown of trust.

Third, there should be an 'always on' opportunity for residents to participate and respond, so that they are not limited by the constraints of particular events. This is essential to ensure a high response rate and to maximise participation by those who are time poor and therefore less likely to attend events. But it has another even more important effect; it underlines the fact that everyone's view and participation is equally important. In order to achieve this, I believe that digital engagement must be an integral component of any engagement process with residents, however that is achieved.



Many organisations and projects are adopting these principles. Our work with housing providers such as Peabody, Genesis and Poplar Harca demonstrates their enthusiasm and commitment. There is a fantastic opportunity in the rush to create new housing, which could radically update expectations of community engagement in development projects. Using these new and emerging tools, blended with face-to-face discussion and events, every resident should have the expectation of being a partner in these projects.

In my view, this is what we should all reasonably expect of estate regeneration in the 21st century, in order to deliver housing and improve community cohesion on estates.

Mike Saunders is CEO of Commonplace.



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ONE MANCHESTER GOES LIVE WITH AAREON QL



Aareon has completed one of the first implementations of the latest version of its Aareon QL housing management software at One Manchester.

One Manchester was formed in 2015 from the merger of Eastland Homes and City South Manchester Housing Trust. A key part of the merger was to consolidate the core systems, with a single housing management system enabling a single view of properties and tenants for staff, the opportunity to deploy new processes and a single customer and property data set.

With the help of Charles Brooks, consulting director at 3C Consulting, One Manchester issued a Further Competition tender, resulting in the selection of the latest version (v4) of

Aareon's QL housing management system. The implementation itself began in December 2015.

The implementation was based on Aareon's Best Practice Implementation Methodology, with a dedicated Aareon project manager responsible for managing resources, planning and delivering the project on time, within budget and to quality standards. Aareon also assigned a high-level project sponsor who communicated with their One Manchester counterpart; although they were both removed from the project's day-to-day issues, they received reports and regular updates from their project managers to show progress against key milestones and to oversee the smooth running of the project.

A dedicated website was accessible by both the One Manchester and Aareon project teams as the central facility for the project, where meeting dates, key milestones were added to the project diary, to-do lists were created and

allocated to members of the project teams, and workshop notes and actions were stored.

John McGrail, group director of finance, One Manchester, said, "One Manchester and Aareon have worked closely in the successful implementation of QL4, made the more challenging as it brought two different organisations and ways of working together on a common platform."

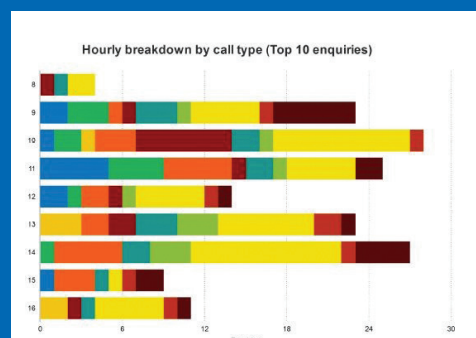
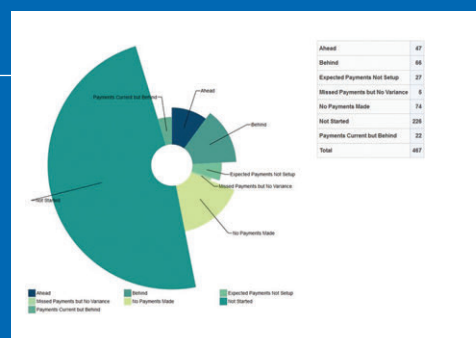
Charles Brooks, consulting director, 3C Consultants, said, "The implementation of Aareon QL as One Manchester's new housing management system alongside a triad of systems for electronic document management, 1st Touch repairs and invoice payments cannot be underestimated. The actual go-live was one of the calmest I have seen, with all post go-live issues managed successfully."

Walsall Housing gains insights with Clearview

Walsall Housing Group is using Clearview's business intelligence and reporting software, having originally started with Clearview's strategy and performance suite in 2007.

Hazel Edwards, business insight and performance manager, Walsall Housing Group, said, "Before the introduction of Clearview, a lot of our technical report-writing team's time was spent responding to one-off information requests. We decided that we wanted to move to more of a self-service model for reporting, not only to maximise the impact of our technical skills but also to empower colleagues to own their own data and performance reporting.

"Various people across the business now have their own tailored up-to-date reports. The tool is being used really well by our income collection and community safety teams, for example. They are accessing the Clearview system and reviewing their data, seeing where improvements to the business can be made and making these changes. This is a great example of using the tool to gain actionable insights and improve our services."





ARE YOU READY FOR GDPR?

Ian Smith, Finance Director & General Manager, Invu Services

The chances are that you're aware of the General Data Protection Regulations (GDPR), which have been a topic of much debate in EU Parliament over the past five years. The GDPR replaces the Data Protection Directive 95/46/EC and has been constructed to harmonise data privacy laws across the EU, protecting the data privacy of every person within the EU and affecting the way businesses across Europe approach the storage and management of data. Illegal accessing of information is not new but it continues to grow, while consumer confidence in the security of data storage is diminishing. High profile cases of data losses, including the theft of 38 million account details from Adobe, the compromise of 20,000 Tesco bank accounts and the hacking of one billion Yahoo email accounts do nothing to reassure customers that their information is safe.

Data is power and businesses need to reassure customers and partners that their information is secured to the greatest possible degree. Under GDPR, more data will be treated as 'personal data', along with address details, financial details and contract agreements that fall under this umbrella. The GDPR acts as a replacement to the current Data Protection Act in the UK, but significantly raises the stakes in terms of compliance. It's designed to protect sensitive personal data such as political views, medical details, passport or ID document scans. Organisations in the housing sector need to also consider additional data such as IP addresses and other online identifiers that will be classed as 'personal data'.

Irrespective of Brexit, the GDPR will come into force on 25 May 2018, so with just over 12 months to prepare, are housing providers in a position to successfully manage the implications of GDPR? Let's have a look at three of the key implications:

1. Financial Penalties

Historically, the Information

Commissioner's Office (ICO) has been constrained by the level of financial penalty it can impose on big brands if they suffer a data breach. In October 2016, the ICO fined TalkTalk £400,000 for failing to prevent a data breach that occurred the previous year. A reasonable sum to most, but to a business that filed EBITDA of £260m in its 2016 annual report it can be argued that it didn't really make much of an impact.

However, with the GDPR the ICO has increased clout when it comes to penalties, with the maximum penalty equal to 4 per cent of annual turnover or €20 million, whichever is the greater.

2. Do your suppliers process data?

The housing sector has a number of partners and suppliers that manage data for other businesses and under GDPR they are now responsible for the way that data is securely managed. If any supplier to the housing sector systematically manages, processes or stores data on behalf of a partner/supplier then it is liable should a data breach occur.

Interestingly, should a data breach occur via a partner or supplier, this does not absolve the owning business from any blame. Its data security will also come under examination. So not only should organisations in the housing sector make sure that their houses are in order, collectively they should be asking their partners and suppliers what they are doing to prepare for the introduction of GDPR.

3. Notifying the ICO

A business will no longer be able to sit on a data breach while it deals with the problem and then grudgingly notify the authorities once it has it under control or enough time has passed to lessen the impact. The Yahoo email hack, which reportedly affected over one billion email accounts and could be the biggest data breach in history, was reported in 2016, but originally happened in 2014. This

won't be acceptable once GDPR is in place.

GDPR makes it clear that a notifiable breach has to be reported to the relevant supervisory authority within 72 hours of the organisation becoming aware of it. Failure to do so can also result in a penalty of up to €10 million or 2 per cent of global turnover. So honesty is the best policy.

What to do now?

Whatever you do, don't do nothing! If you work in the housing sector and you don't know how your organisation is preparing for GDPR then we strongly suggest you find out soon. Gap analysis of internal data security processes should already be underway and even better, new standards for managing, processing, storing and disposing of data should be being rolled out.

Ideally, by now, you should already have reviewed your policies and processes regarding the handling of personal data and should be looking to bolster your data security to avoid any potential breaches. And while there is a view among IT professionals that if a hacker wants to hack a business, then they will find a way, at least businesses shouldn't leave the back door open for them.

Having robust data security, management, storage and disposal policies in place will help you become more secure. Equally as important is the training you give to employees because you need to make certain that they're aware of the changes and that they're aware of the financial penalties.

If you want to know more about GDPR and how it could impact your organisation, perhaps have a look at www.eugdpr.org and www.ico.org.uk/for-organisations/data-protection-reform.

Ian Smith is finance director and general manager at Invu Services.

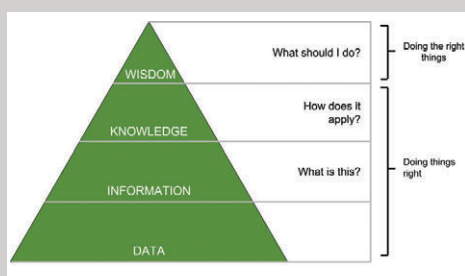


DATA – FROM CONNECTIONS TO PROJECTIONS

Aidan Dunphy, Head of Product Strategy, Orchard

Data: it's the stuff of IT. We hear about it all the time. Databases, datasticks, data lakes, data quality, data mining, data analytics. Just as with IT and iPads, so the consumerisation of data has led to everyone having an apparently expert opinion on what it is, what it's for, what's wrong with it and how to fix it.

However a (pseudo) academic examination of data helps to differentiate what's really important to us. No doubt you're familiar with the trope that DATA + MEANING = INFORMATION; that is to say, we humans can invest raw data with a connection to the concepts of our lives. Perhaps you've also considered that adding CONTEXT to INFORMATION yields KNOWLEDGE, a firmer anchoring to specific real-world objects, locations and people. Those sages among us looking to improve the human condition will be able to work out how to APPLY KNOWLEDGE in order to attain WISDOM. These ideas are commonly illustrated using a DIKW pyramid.



A simple example of these concepts: the data "red" may be enriched by the meaning "red traffic light", placed by the context "the traffic light in front of me has just changed to red", from which you may glean the arcane wisdom that "I should press my foot on the brake". Redness alone wouldn't lead to this action, otherwise we would have to choose a different colour to paint the edge of speed limit signs. Then again, thinking about the implications for road safety...

The American logician Charles Sanders Peirce, known as 'the father of pragmatism', founded semiotics as a

system of symbols or signs, representing signals or stimuli. He missed out the fifth 'S' - data is stupid. It is dumb and devoid of meaning; it can be read one way or another and care must be taken to correctly identify meaning and context.

So why the obsession with data, and not information, knowledge or wisdom? We are a society growing ever more confident with technology and technical concepts. For example, take the current resurgence of 'big data' in the housing sector. The definition of the term varies, but commonly accepted characteristics are that the dataset is too large to be processed by traditional software applications, and that there are insights that can be gained only from such a large scale. However, one could argue that you could take all of the data held in databases by all of the housing providers, put it all together and you still wouldn't have enough data to qualify as true 'big data'. The advent of IoT devices over the next few years will certainly start to generate truly large volumes, but in truth this has barely started.

This isn't just semantic quibbling; the danger of focusing on the mechanics of advanced data manipulation is that we miss opportunities for more easily-obtained benefits, glossing over the need to address basic problems that obstruct these. Predictive analytics, K-means clustering, sentiment analysis and other such techniques won't help you much at this scale if the data you're throwing at them is rubbish, without meaning or context. Worse still, and as GDPR go-live on 25th May 2018 draws inexorably closer, organisations are beginning to wake up to the threat of 'dark data' - that which is collected or generated, but not used, maintained or even acknowledged. It's difficult to assess these 'Donald Rumsfeld-style' unknown-unknown situations, but Veritas estimates that one third of enterprise data is ROT (redundant, obsolete or trivial) and

perhaps one half is dark; unclassified, under the radar and potentially presenting an unknown threat.



Why do we suffer from these data silos, poorly-described data, duplication and conflicts? To understand why a lack of data standards and poor integration are endemic, consider the example of the traditional schism between the development and housing departments within a provider. In many situations I have encountered the complaint that detailed information about the configuration of new builds is held by the development department but not made available to housing management or sales; efforts to resolve this frequently fail not because of technical barriers, but because there is a lack of a strategic imperative from above and nothing in it for the development team. In short, data integration is actually a people problem.

There have been attempts to improve things. In the mid-noughties, the now-defunct ODPM poured millions into e-government projects, giving rise to laudable but ultimately doomed projects such as the Adapters Club, which sought to commoditise integration and thereby drive down costs. In 2008, Housing Technology itself launched a standards board with the aim of engendering cross-sector collaboration; sadly the inaugural and only meeting between housing providers and IT suppliers quickly descended into trench warfare (although this project is perhaps only dormant and remains an ambition for Housing Technology). More recently, a group of UK housing providers has

DATA - FROM CONNECTIONS TO PROJECTIONS

Continued from previous page

been working to emulate the CORA project in the Netherlands, which saw the broad adoption of standard definitions for data entities and processes across the housing sector, and this has now been adopted by HACT. At the strategic business level, Home Group is leading a consortium of providers to define a set of performance indicators forming a 'sector scorecard', enabling meaningful performance metrics that can be used to negotiate with government agencies.

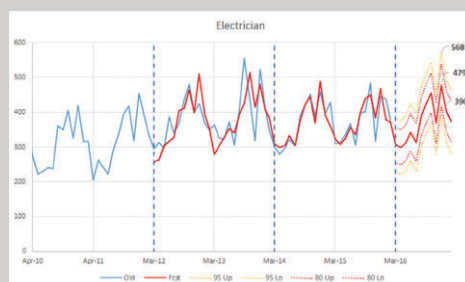
All of these initiatives will require significant investment by housing providers, and so present a familiar challenge: how do you convince your board to fund something inherently technical and with strategic but no obvious immediate tactical benefit? Well, there are some low-hanging fruit to consider, which can serve to illustrate the potential returns of giving your data some TLC.

One such area is stock assessment and options appraisal. In this era of cost-awareness, housing providers, when suitably armed with the right tools, can easily identify significant efficiencies by examining more closely the performance of individual properties. Further revenue and cost-saving opportunities can be revealed by projecting value based on various planned maintenance, disposal or development scenarios. Regulatory compliance around risk management can also be achieved by stress-testing the business model against scenarios such as tax changes, inflation and/or further rent reductions.

These critically important analyses will be reliable only if the underlying data is of decent quality, consistently defined and up-to-date; any executive who has been around the block will know to beware of the common ailment 'garbage in, garbage out'. Nevertheless, establishing the value of such data-driven planning is relatively straightforward, and can help to create a culture of confidence in data. Only when this has been achieved should more arcane methods be proposed, if they are not to be dismissed as impractical nerdiness or, in more analytically-challenged settings, witchcraft.

Pursuing its interest in such magical arts, last year Orchard engaged with Lancaster University's Centre for

Forecasting in an experiment to see how accurately responsive repairs demand could be predicted. Anonymised datasets was provided by two clients, and the standard measure MAPE (Minimum Average Percentage Error) used to assess the accuracy of the predictive model. Benchmarks for this measure range from 13 per cent down to seven per cent in the retail sector. After 12 weeks' work we were able to forecast demand by trade type to an error of between 15.2 per cent and 5.3 per cent, and this with only minimal exploration of the data.

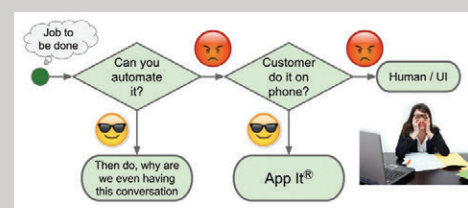


Such accurate demand prediction on a provider's most costly service offers exciting possibilities for significant cost reductions, and Orchard has subsequently hired a data scientist to further develop its expertise in predictive analytics, focusing in the first instance on financial distress and rent arrears in a partnership development project working with four leading housing providers.

Data analytics is very much a here-and-now technology, so what's coming next? To sum up the general trend in consumer technology, one might consider the following assertion: nobody wants to use software.

The point is that software is not something that people want to use; it's merely a means to some other end (unless you are, like the author, a geek). With this in mind, one should always question whether it is necessary to expect humans to type things into screens, or as Google design strategist Golden Krishna put it, "the best interface is no interface".

Apps have been around for some time and are now commonplace, but it's clear that their days are numbered. Alexa, Cortana and Siri and... um... Mr. Google all have it in for the touch user interface, and the integration of AI-driven micro-services into messaging is the way



forward. So if this is going to be the new paradigm for customer interaction, then what about the data that underpins it?

Arguably one of the main underlying causes of the appalling state of enterprise data is the fact that everyone keeps their own records, using inconsistent methods and to very poor quality standards. Perhaps the answer to this is distributed ledger technology (DLT if you must acronymise, and nothing to do with old Radio 1 DJs), the best-known example of which is Blockchain which underpins the world's most successful crypto-currency Bitcoin. DLT promises to globalise data integrity by enabling any transaction anywhere to be recorded in an indelible, incorruptible and unique record. It is predicted that this will eventually supersede private databases and solve the problems that they bring, but it is likely to be many years before Blockchain gains sufficient traction to be regarded as mainstream.

There is therefore plenty of opportunity in the interim to be realised from investment in data cleansing, data mining, standardisation, integration, sharing and aggregation. We need to realise that it's our data that fuels everything, and if it's of poor quality then we shouldn't be surprised when we get poor outputs. The traditional approach to the implementation of IT systems in the housing sector is sometimes rather like buying a new car, filling it with coal then trying to pull it with horses. In the new world of the digital customer this won't be tolerated, so we must improve quickly. A good place to start is simply to look at your data and ask, "what is it, what does it mean and why do we hold it?" The answers to these questions should begin to uncover some rapid benefits, lead to more questions and start to build a culture of confidence in data; this way you can hope to avoid the expensive futility of endlessly searching for the perfect system.

Aidan Dunphy is head of product strategy at Orchard.



SOVEREIGN'S ENTERPRISE GIS

Andrew Bradley, Strategic Insight Manager, Sovereign Housing

Geographic Information System (GIS) technology has been transforming how we do things here at Sovereign Housing over the past four years, bringing data to life and influencing our future strategy as well as our day-to-day work.

Following a recent merger with Spectrum Housing Group, we're now one of the largest housing providers in the country with over 56,000 homes. The merger was based on growing within a core geography and generating economies of scale, with significant savings to put back into building more much-needed affordable homes.

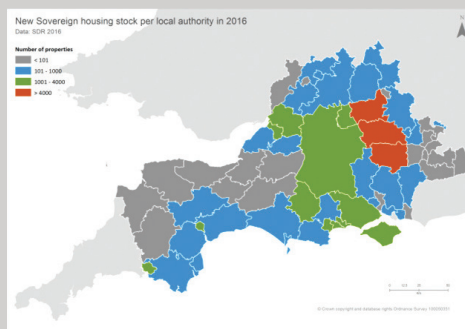
GIS informed the merger planning and is now helping us shape our future strategy. And, as we bring the business together, it's also giving us insights in to how we can work more effectively and provide an even better customer experience to our 130,000 residents.

An ambitious strategy

Sovereign's journey with GIS started in 2013 when our executive board agreed to develop a sector-leading GIS system. In April 2015, we deployed SEMS (Sovereign Electronic Mapping System) to over 500 employees. Today, all 1,800 staff can access and use the system to support their work.

It's really embedded the role of location into how the business thinks and acts. The system helps employees across the business see where all our properties are, every parcel of land we own and every piece of land we maintain. We've even logged every tree we're responsible for.

When the merger between Spectrum and Sovereign was being considered, location was a key driver in the benefits case. Across the housing sector, organisations are looking for ways to be more effective and both organisations knew that a combined geography would help them to create a more efficient



service delivery. We used SEMS to map out the operating areas so that we could see what the combined organisation would look like; this really helped to show the geographic correlation.

The merger was completed in November 2016 and our GIS team started work on plans to extend SEMS to include the extra 17,000 homes and over 5,000 land titles from Spectrum.

We knew SEMS could be an incredibly important tool to support the new business, but time was a factor. While we wanted to rapidly extend our existing system, we also needed to focus on what we could deliver in the first few months.

Just three months after the merger, we had combined the majority of the critical GIS data in the system while supporting senior managers as they made decisions about our operating area and how to best define new divisions within it.

The team then trained around 150 new employees to inform our day-to-day operations. Alice Rhodes, our GIS analyst who built SEMS and led the post-merger rollout, saw the reaction from employees when they used the system for the first time. She said, "When our colleagues use the system, they immediately see how it can help them in their roles. By having access to SEMS, they can confidently answer questions about our land and properties, which ultimately helps them deliver a better, more efficient service to our residents."

SEMS' four core benefits:

Enabling employees: Following SEMS training, feedback has been fantastic. Colleagues immediately see how it benefits them and their customers. Using SEMS, any employee can see all of Sovereign's properties, land assets and grounds maintenance responsibilities. This helps them to deal with customer questions quickly, and often at first point of contact, with the confidence that the information is accurate.

Understanding our customers: By understanding the role of geography, we can better understand our customers and target our work. For managers, SEMS is being used to optimise our 'patches', which means less time travelling and more time working with customers. It's also used to visualise data on our residents. We've been working with our communities' teams to map key customer information such as deprivation, arrears and benefit dependency to identify our priority neighbourhoods. Meanwhile, we've also worked with the communications team to map digital opportunities for new online services.



Managing assets: We own and manage over 56,000 homes and are responsible for over 10,000 titles of land - the equivalent of a medium-sized town. With such a large stockholding, it's key that good systems are used to help manage those assets. That's one of the biggest

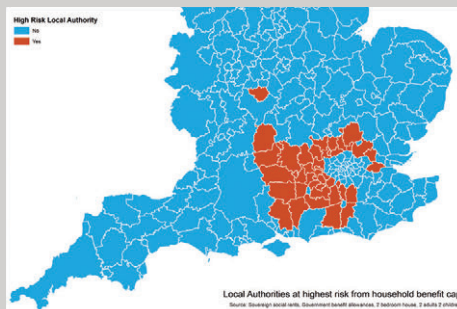
SOVEREIGN'S ENTERPRISE GIS

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benefits of SEMS, helping us understand our assets and liabilities and to plan effectively for the future. With a variety of homes of different ages and varying forward maintenance plans, we needed a data-driven approach to prioritise sites for redevelopment.

As well as viewing all assets across the new organisation, SEMS has also been used to share land data from key partners, such as local authorities.

Strategic research: Following the merger, we need a new strategy for the new Sovereign. We're undertaking ten research projects to better understand our customers and the operating environment, which will help steer the business in the coming years. SEMS has enabled the strategy team to use location as a key factor to support some of this research. SEMS has been helping us look at how our customers' affordability challenges vary across our operating area by comparing incomes, our rent charges and the cost of living.



The research has revealed which areas are the most and least affordable for customers.

In November 2016, the government's latest benefit cap came into effect and we used SEMS to predict which local authorities were most likely to be affected. Maps helped raise awareness of these challenges and shaped our response.

Using SEMS means we can understand our customers in a new way, and presenting our research on maps also really captures the audience's attention and gets the message across quickly.

GIS is at the heart of what we do

We set ourselves the target of building a sector-leading GIS system. I think we've come a long way, with SEMS shaping Sovereign's growth as well as adding huge value across the business every day. It's allowing us to share knowledge across teams, break down silos and helping us make better decisions. And its uses continue to grow as the business finds new ways to visualise and use data.

The role of the location and use of GIS technology has become embedded in so much of Sovereign's activities, and this is largely thanks to our approach of creating our own enterprise GIS; it's a system that quickly pays for itself.

I'd suggest any housing provider without an enterprise GIS takes a good look at what it can do for them; for us, it's now an absolutely essential part of our business thinking.

Andrew Bradley is a strategic insight manager at Sovereign Housing.

FINANCE MANAGEMENT

Magenta Living uses In4Systems for NPV data and stock viability



In order to manage its stock viability options using net present value (NPV) calculations and neighbourhood insight scoring, Magenta Living is using In4Systems' Options Appraisal software.

Previously, Magenta Living held internal reviews to discuss any issues with particular neighbourhoods but with only limited financial analysis carried out at the level of individual properties, it wanted to look into ways of making more accurate and validated investment decisions.

After a year of working with Options Appraisal, Magenta Living has benefited from being able to identify any poorly-performing properties at an individual level. With the ability to carry out varied financial analyses, the findings can be incorporated into its strategy, helping it to make more informed and evidence-based investment decisions, in line with HCA requirements. If a particular block is performing poorly, an appraisal can be done to analyse the effects of selling the properties, converting to

market rent or even demolishing and rebuilding. Similarly, it can identify, for example, that well-performing areas may have higher management costs.

Zoe Carmichael, strategic asset manager, Magenta Living, said, "We can now look at our budget for the next 15 years with a clearer indication and plan of the investments that we would like to make. Where we have been allocated budgets, we can make more effective decisions on how to retain tenancies and future-proof properties, thereby improving performance and increasing efficiencies.

"The ability to compare different scenarios for the same group of properties is a vital part of our decision-making regarding our stock investments, and it has given us the tools to identify where our focus should be and to effectively plan for the future. And as an existing In4Systems customer, we've also been able to maximise the use of data already held in Promaster, therefore saving time and manual efforts."



PROCUREMENT IN A POST-BREXIT WORLD

Juliet Hailstone, Senior Product Marketing Manager, MHR

The impact of Brexit on UK housing providers is still unclear and is very much dependent on how the UK's relationship with the EU is redefined – whether or not the UK makes budget contributions to the EU, agrees to either free or restricted trade and movement of people, or even refuses to give any element of preferential access to the EU single market.

However, what we can be sure of is that housing providers' boards must be prepared to tackle challenges around the impact of Brexit on housing demand, funding, regulations, home building, and the availability of labour and talent.

Availability of funds

At the beginning of 2016, available capital was a relative rarity for privately-funded housing providers and, in unsure times, it seems natural for housing providers to tuck their wings in and sit tight rather than attempting to raise finance from the capital markets. With the additional challenges of numerous mergers and organisational restructures, it seems all the more tempting to hold onto anything that could be considered a constant.

When it comes to public funding for housing providers, significant challenges are also present. The EU funding currently available (EU Structural and Investment, including the ERDF and ESF, and funding from the European Investment Bank) may be reduced or simply no longer available post-Brexit.

So money will be tight and therefore smarter, more value-driven procurement will be key.

Availability of talent and materials

Quite simply, many construction materials are imported from countries within the EU. While the drop in the

value of the pound will be having a fairly immediate impact on the cost of materials, the longer-term consideration is the impact on the free movement of goods between EU countries, and the potential increase of import costs (and therefore construction costs) post-Brexit.

It has been widely reported that the UK is suffering from a construction skills shortage which has an immediate and obvious impact on the planned increased output of new homes. There is no doubt that Brexit will have a further impact on the UK's talent pool, and limits on EU migration may well increase the cost of construction.

Again, with raised construction costs and the importance of maintaining a healthy bottom line, housing providers will be under pressure to run a tight ship, and squeezing value from the procurement process will be essential.

Impact on procurement

Procurement has come under scrutiny recently, not least from the Housing Quality Network, whose view that housing providers' maintenance costs have gone up significantly in recent years resulted in chief executive Alistair McIntosh questioning whether it was "just the market, materials or slack procurement?"

While it would be easy to assume that the EU public procurement procedure (OJEU) shouldn't apply post-Brexit, in reality it (or something similar) is still likely to apply in many post-Brexit scenarios. While many housing providers might issue a collective groan at this news, it may not be all bad and there are other approaches to consider.

Planning for the post-Brexit procurement landscape seems a fantastic time to review procurement processes and tackle any of the opacity that remains around the adoption of a value-driven approach.

Are frameworks still the way forward?

Housing providers are under increasing pressure to take a more commercial approach to procurement and to demonstrate efficiency.

EU procedural restrictions when procuring goods and services for large deals have often been criticised, but have arguably raised the standard of procurement in the housing sector. Some say that transparency and competition have helped to give the wider marketplace, as well as tenants themselves, more faith that housing providers are taking a responsible attitude to ensuring value for money and efficiency.

Rather than undertaking an approach of procurement from organisations that were known, EU restrictions (augmented by Home & Communities Agency regulations and recommendations from the Housing Quality Network) have driven housing providers to procure with more of a value-driven head.

However, others believe that a persistent reliance on frameworks is outdated. It's more critical than ever to buy the right solution to deliver the right results and it's questionable whether existing frameworks can offer the flexibility required to ensure this happens.

It seems sensible to conclude that the answer to the question of whether or not frameworks are still the way forward is probably somewhere in between

PROCUREMENT IN A POST-BREXIT WORLD

Continued from previous page

these viewpoints, recognising that an established framework is often a useful tool when considering the functional requirements of a solution within a more broad context, but that the detailed value may lie within a more dynamic procurement option.

Mini-competitions and procurement clubs

For a procurement process requiring more precision and/or detail, mini-competitions used within a framework agreement can enable housing providers to secure better terms – a proactive method of taking a more commercial approach to procurement and demonstrating efficiency.

In terms of resourcing the procurement process, many housing providers may not have the resources to assign a full

procurement team. Whether it's through collaborating, joining a procurement club or outsourcing much of the procurement to a procurement solution provider, embracing the options available for reducing the individual resource load for procurement can be a sensible option.

Looking at the benefits of procurement clubs in particular, there are benefits that can be delivered, particularly for less complex procurements:

- Common issues can be identified and best practice shared;
- Time can be saved and resources pooled;
- Compliance with UK and EU legislation is assured;
- Value for money can be demonstrated quite easily.

Of course, due diligence must be undertaken in the form of a procurement strategy review to ensure that the costs of using the framework are understood, the risk is minimised and the objectives for realising potential benefits are clearly defined.

With Brexit on the horizon and the housing industry already faced with rising costs and a skills shortage, extracting value from the procurement process has never been so crucial for housing providers.

The challenge ahead will be how they manage to balance a new sense of freedom with compliance and securing the best deal.

Juliet Hailstone is a senior product marketing manager at MHR.

Southwark streamlines service charges with Northgate



The London Borough of Southwark has streamlined its service charge process with help from Northgate Public Services.

With the Right to Buy policy increasing the number of leaseholders, the council realised that it was vital that service charges were billed correctly and collected promptly, so it commissioned an end-to-end review of service processes to check how things were working and to see what might be improved.

The council found that leaseholders were receiving separate invoices for different elements of their service charges, and that those invoices were being managed by different teams. It meant one team would contact a leaseholder to discuss annual revenue charges and another would contact them about major works.

Louise Turff, homeownership services manager, London Borough of Southwark, said, "Revenue collection was also problematic because it was hard to allocate money to a leaseholder's different accounts. If they paid a lump sum, it was difficult to apportion it across the accounts correctly, which meant teams were often chasing for payments that had already been made.

"We knew we needed a redesign so we asked our long-term partner, Northgate Public Services, to develop a new solution for service charges."

Since the new system went live, Southwark's leaseholders now have a single account for all their service charge invoices. The payment process is also much easier, with leaseholders able to see what they need to pay for and when.

Turff said, "Most importantly, we've moved to a single collections team, giving each homeowner a single point of contact to discuss their bills and payment schedules. It's improved customer service dramatically, and we've completely removed the duplication of effort we had around revenue collection.

"Leaseholders can now see their service charge statements online and request repairs using Northgate's 'My Southwark' portal. Already, 25 per cent of leaseholders are registered for self-service and we want to increase that to over 50 per cent."



INTEGRATOR HOUSING SOLUTIONS – 30 YEARS OF HOUSING ASSET MANAGEMENT

Vic Harrison, Managing Director, Integrator Housing Solutions

Housing Technology interviewed Integrator Housing Solutions' managing director, Vic Harrison, about the company's 30-year pedigree of providing housing asset management software and his views on the future of IT in social housing.

What is the background to Integrator Housing Solutions?

Integrator's asset management software originated from a request by Orbit Housing to develop a system to bring together several different spreadsheets, including stock condition and SAP, into one manageable reporting system in 2001. During the next five years, 28 other housing providers found our flexible and friendly approach of merit and they are still working with us today.

The key to the success of Integrator was the ability for each housing provider's staff to talk direct with Alan Horton, our senior developer, about their specific requirements, which gave them the flexibility to buy a system that was bespoke to their requirements. In turn, this benefitted the rest of our customers, through constant enhancements to the Integrator system.

Integrator's senior management team

My interest in starting a company to develop asset management software came from a 20-year background in building management, working for companies such as Bovis Construction, Bovis Homes, Huntingate Homes and then with Greenwood Homes in the energy capital of Milton Keynes where the SAP and the present-day EPC were developed by the BRE from the NHER and MKECI, (Milton Keynes Energy Cost Index). I qualified in 1990 as one of the first energy assessors with the National Energy Foundation and a BREEAM accredited assessor, using the Building Research Establishment Environmental Assessment Method for several housing providers.

I then spent the next 10 years gaining valuable experience with National Energy Services demonstrating the value of energy-efficient housing to builders, local authorities and housing providers throughout the UK. I set up ecmk in 2001; this included the Integrator software together with a government-approved accreditation scheme for SAP and EPCs.

Our senior developer, Alan Horton, was closely involved in many of the pioneering low energy housing field trials in Milton Keynes during the 70s, 80s and 90s, working with the Open University, Milton Keynes Development Corporation, the National Energy Foundation and National Energy Services. Much of this work contributed to the development of the energy-labelling software that underpins EPCs in widespread use today. Much of this work involved database development, and he began work with me in 2000 to develop the Integrator asset management system. Alan is still very active today and is always very keen to hear from customers about enhancements to Integrator that they would like to see.

Mike Hartney, our technical development manager, has been involved in energy efficiency and housing for the best part of a decade, focusing particularly on assessment methodologies and software. Several years of participation in the Department for Communities and Local Government's RdSAP Conventions group resulted in his involvement with many changes to the national energy efficiency methodologies. In previous organisations he has focused on business analysis and software management and has led various large-scale software development projects in the energy efficiency and social housing sectors.

What is Integrator's proposition to housing providers?

Our unique proposition is that Integrator

is developed for housing providers by housing associations. All features of the system have been developed with full cooperation from housing professionals to follow their working practices.

Furthermore, Integrator has always included the ability to calculate a full SAP for all of a housing provider's housing stock. However, with the changes over the past year or so, we now have included a facility to download pre-lodged EPCs direct from the approved companies such as Elmhurst, ecmk, Quidos and Stroma directly into Integrator.

What are your views on the future of IT in social housing?

In recent years, there have been broad technological shifts which have influenced how social housing organisations work and interact internally.

With an increased emphasis on legislation, process and departmental division, separate areas of the business often require access to the same information and cannot rely on individual, isolated solutions pertaining to the very specific scope of a particular domain. There has been a marked increase across the sector in the employment of organisational middleware products, designed to aggregate and unify data across several discrete platforms. This is not, of course, limited to the social housing sector, but it is especially relevant to its nature – with the efficient handling of so many distinct elements functioning as minimum requirements from the get-go (such as accounting, maintenance, legislation, tenancy and more).

Moving forward, we will see this emphasis on data availability and system interoperability moving ever more to the forefront. Users across the business need access to various data and systems need to interact with each other.

INTEGRATOR HOUSING SOLUTIONS – 30 YEARS OF HOUSING ASSET MANAGEMENT

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As technology has rapidly progressed towards web and cloud functionality, there is a growing expectation of "all of my data, now, anywhere". When a business can draw the emphasis away from managing their own ICT infrastructure and focus on their primary functions, more can be achieved at lower cost.

With the above in mind, we can build a loose picture of the future for social housing organisations:

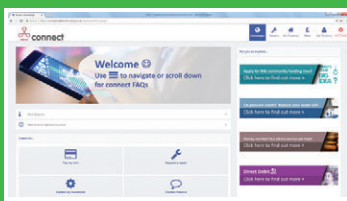
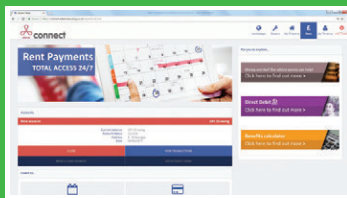
- Any staff member can be given easy access to any data;
- Any system can be configured to share data with other systems;
- Systems are 'light' for client organisations, with the primary weight of infrastructure lying with the supplier;
- Systems are 'environment agnostic', removing the limitations created by past infrastructure choices;
- Systems are flexible in usage to accommodate modern working practices.

It is the aim of Integrator Housing Solutions to help deliver this future to our customers, from new interoperability features in the existing Integrator system, to the entirely web-based Integrator project now in development.

Vic Harrison is managing director of Integrator Housing Solutions.

CUSTOMER MANAGEMENT

Adactus Housing's 1st Touch tenant portal



With over 1,500 tenants registered in the first three months, Adactus Housing Group has hailed its new tenant portal as a success.

Based on the 360° Tenant Portal software from 1st Touch, Adactus's tenants can now use their own devices at any time to review rent accounts, repairs history and tenancy agreements, request repairs, set up energy advice visits and make contact with the team at Adactus. This portal also provides the housing provider's management team with a single view of key data and KPIs across its operations.

Suzannah Robinson, digital projects manager, Adactus Housing Group, said, "In

augmenting our call-centre system, we were keen to see a rapid take-up by customers for this new online alternative. To prime the pumps, we supported our go-live with a targeted and personalised marketing campaign which created rapid awareness among our customer base. We have also targeted specific groups with campaigns aimed at grant applications, water bill management and hate-crime reduction. And to exploit the benefits of social media too, we have set up a number of

regional Facebook pages.

"We are delighted that over 1,500 customers have signed up so far and furthermore, we are very pleased that many seem to making good use of the system's functionality. Google analytics shows that 57 per cent of them are accessing the technology by mobile and the most popular activity is reviewing tenancy and rent information."

GUINNESS EMBRACES APPELLO DIGITAL CARE

Guinness Care is using digital care software from Appello in its 60 new extra-care apartments in Totnes.

Residents will benefit from almost instantaneous connections to an alarm receiving centre, and will be able to take advantage of room-to-room calling which can be video enabled to help support social inclusion. Appello's digital care infrastructure also provides easy integration with other services and the ability to connect additional devices,

from tablets and smartphones to smart sensors and other connected devices, to help residents lead fully-connected and independent lives.

Robin Macintosh, head of community services, Guinness Care, said, "We want to move away from outdated analogue systems and embrace the many benefits digital offers, and after seeing Appello's digital solution, we're committed to only install digital care solutions in our new developments."

Tim Barclay, CEO, Appello, said, "Not only can we provide 24/7 monitoring services to all of the residents at Guinness Care's new development, the digital care system will offer room-to-room video calling and internet connectivity, both of which are proven to improve social inclusion. The system also supports connection to smart devices, allowing residents to enjoy the same features as their friends and family and helping them maintain and improve their wellness through the latest health and wellbeing technologies."



Castleton CRM at Scottish Borders Housing



Bryony Stocker, CRM project manager
Scottish Borders Housing Association

Scottish Borders Housing Association went live with Castleton Technology's EDRM and CRM software in April 2016, initially for complaints and anti-social behaviour, and for general enquiries in August 2016. Integration of the housing provider's repairs service into the CRM system began last month, with mobile working and self-service repairs for tenants expected early next year.

One of the housing provider's CRM users said, "The new system makes contacting a tenant much easier, giving you access to all facts and figures at your fingertips in a second."

Bryony Stocker, CRM project manager, Scottish Borders Housing Association, said, "We are very pleased to have gone live with Castleton CRM and EDRM. Great care was taken to include tenants as well as staff in the design and development of key modules and those early process mapping sessions are now paying off."

"The business benefits of these have been great, allowing increased visibility and accountability in customer contacts, and one source of information to answer any queries."

CAPITA WINS EUROPEAN IT AWARD FOR YMCA PROJECT



Capita's software services business has been awarded the 'connected/mobility solution of the year' title at the European IT & Software Excellence 2017

awards for how it has helped Liverpool YMCA to tackle homelessness and access to support services in the city.

Based on Capita's Advantage Impact solutions, Liverpool YMCA's 'MainStay' project was developed with the aim of providing improved access to short-term

housing through more than 50 partner agencies and local authorities working together to share information.

Capita said that Advantage Impact is designed for organisations to use with service users, referral agencies and services for various functions such as assessing, referring, matching to services based on needs, risk, priority, and placing or signposting users.

MainStay has since evolved to be a Merseyside-wide project, improving access to all support services through a single-assessment that matches vulnerable people to available services and enables progress and outcomes to be monitored online.

The success of the MainStay project means that 66 per cent of applicants are now placed in accommodation within a week and one in four within 24 hours.

David Pugh, MainStay manager, Liverpool YMCA, said, "We wanted to revolutionise our referrals service for homelessness and we knew that an IT system that all partner agencies could access would help us achieve just that."

"Ultimately, we are preventing as many people as possible from sleeping rough and the matching used in the system means that people are accessing the right service for their needs straight away"

Ranting and raving at Flagship



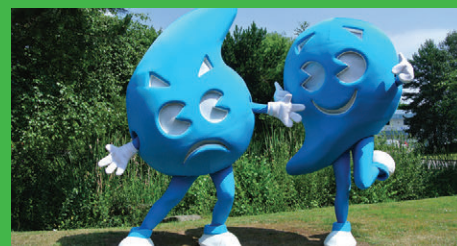
Flagship Group will be using Rant & Rave's online customer engagement

platform to listen to its tenants in a bid to better understand their needs. Flagship will be rolling out Rant & Rave as a real-time solution across all housing types, covering all customer journeys, and a multitude of touchpoints using email, SMS and IVR.

Flagship will now be able to measure both its customer satisfaction score (CSAT) at a transactional level and its

net promoter score (NPS), on an annual basis, as a measure of the quality of its relationships with tenants.

Kenny Bain, CEO, Rant & Rave, said, "Gaining feedback and listening to customers is the only way to truly know how your service is being delivered and received. Not only can they reach their customers in the moments that matter, which will help them solve problems and build loyalty, but they can also commend teams when they have good feedback, enforcing positivity and enhancing service further, or improve where necessary."



Flagship will also be integrating Rant & Rave's module for frontline staff, meaning they will be accountable for their own feedback, and empowered to influence the customer experience by identifying areas of improvement and being able to see the areas in which they excel.



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CAN THE HOUSING SECTOR EVER SEE RESIDENTS AS CUSTOMERS?

Peter Watson, Director, Engage Property Technology

In this connected age, customers across all sectors expect more than they ever have before from the services they consume. For businesses, this presents a challenge in meeting with ever-changing demands in order to secure long-term sustainability. This applies to the housing sector as much as it does to the retail or entertainment sectors.

Meeting customer demand

Today's fastest growing companies are those that have embraced the changes brought by technology. Uber, Amazon and Netflix are prime examples of businesses which have thrown away the rule book on how to deliver services and built new models from the ground up, and with huge success.

Uber, which was founded just eight years ago, has become a global force that gives customers exactly what they want; great service which can be easily accessed and at a good price. It's a simple formula but one that guarantees success.

Within the housing sector, things have moved a little slower. Traditional landlord/tenant relationships still prevail, with landlords continuing to invest heavily in service centres and front-office staff. However, the emergence of the private rental sector (PRS) has brought new players into property management and the impact has certainly been felt by many.

A subtle shift

One very subtle but incredibly important change that has been brought about by these new players is the reference of tenants as customers. Until now, housing has been the only sector which hasn't thought of itself as having 'customers'.

A customer has the same expectations of service quality whether they are buying a washing machine, booking a flight or renting a flat; as with Uber and others, great service that can be easily accessed and at a good price.

Moving the housing sector to a new customer-centric service model may not be easy, but it is essential. It requires investment, vision and bravery. However, doing so doesn't solely benefit the residents – but landlords too. For example, when you consider the calls from residents that come into a service centre, most are capable of being automated with minimal intervention needed from the landlord.

Taking routine maintenance as an example, it's perfectly possible for the customer to start the process online through a self-diagnostic system that will check the validity of the request and book a time slot. The process can then be automated with various checks and balances put in place. The customer themselves can then close the maintenance call and provide an Uber-style rating. This will help the landlord to further improve its service and also negotiate maintenance contracts.

Most importantly, if the maintenance process can be automated and put online, then over 90 per cent of calls that currently come into a call centre can be treated the same way – that's a lot of time, and therefore money, being saved.

A self-serve approach

Property managers in the private sector are now starting to set targets of reducing costs by around 40 per cent within their service and administration centres. This is to be achieved by moving

services online and letting the customers self-serve. At first glance, this may sound like an ambitious target, but in reality it would be surprising if savings of 75 per cent aren't achieved within five years.

However, just because such targets could be achieved doesn't mean that it will necessarily be easy to do so. The transition has to be done properly and for many that means a complete step-change in incumbent practices. In many ways, it's easier for new companies such as Uber because it started with a clean sheet of paper. In contrast, many in the housing sector have complex legacy systems and masses of historical data that have to be dealt with.

Many housing providers have already invested in self-service. However, most aren't seeing the returns on investment they had hoped for and certainly haven't achieved a 40 per cent reduction in administration costs. There are three main reasons for this:

1. Self-service is clearly beneficial to the landlord but what's in it for the customer? It's easy to pick up the phone and call the service centre, so it's essential that the customer is motivated to use self-service. This major part of the service design is invariably forgotten, but if incentives aren't provided, it will ultimately fail.
2. Self-service is usually incorporated into the corporate website among all the good news stories and announcements; quite irritating if someone hasn't had hot water for three days. Then, the content isn't personalised or relevant to the customer when it's only natural that they want information, communications and services relevant to them and not

CAN THE HOUSING SECTOR EVER SEE RESIDENTS AS CUSTOMERS?

Continued from previous page

generic information about the other 20,000 homes their landlord manages throughout the UK.

3. Finally, if substantial savings are to be realised, there's no point in a maintenance request generating an email that lands in the service centre inbox. Processes must be automated and systems integrated to deliver a seamless service to the customer and achieve financial savings.

Reaping the rewards

So, can housing management services be radically changed to deliver the benefits to both the customer and landlord? Absolutely, yes. But certain considerations must be made at the outset.

It's very important to design service delivery from the ground up, ignoring all the constraints of IT systems, structures,

people and so on. Once the vision is set, the job is to then map out the journey of just how it will be achieved. Tinkering around the edges, introducing bits of new technology, changing a few processes and working around the constraints of IT systems and people will only lead to failure.

Government figures show that around 90 per cent of UK households now have access to the internet, with 70 per cent of adults doing so through a smart phone. With this type of blanket access, there's no reason to hold back on redesigning services based on modern delivery principles. There will always be a need for telephone and face-to-face support for customers, but that should be minimised and targeted only towards those who really need it.

The private sector perhaps sees more urgency in improving service delivery and cutting costs in order to create their brand within PRS. However, the sheer size of the social housing sector dictates that this is where the sea change in service delivery really needs to happen.

The opportunities are substantial, but the risks involved in going down this road also need to be carefully managed. Housing providers and landlords must be bold when setting out their vision and refuse to accept anything other than a can-do attitude from suppliers, contractors and staff. Accept that this is a journey for the whole organisation and set KPIs that demonstrate the benefits as soon as they start to be realised.

Peter Watson is a director of Engage Property Technology.

Sigma – housing providers' websites could do better

Research by digital agency Sigma into the user experience of some of the UK's top housing providers' websites has suggested many are falling behind when it comes to facilitating online users, particularly those with disabilities.

Sigma's report, 'Are housing associations incorporating inclusive design into their websites?' revealed a number of shortcomings associated with 10 UK housing websites including Great Places, Places for People, Yorkshire Housing and Accent Group.

Using independent, heuristic testing, Sigma scored each website out of a possible 30 points across a variety of categories encompassing: overall usability; ease of use on different devices; online self-service options; and their accessibility for all users, including those with auditory, physical, cognitive and visual disabilities. On average, the websites scored just 15.5.

The report found that many of the sites failed when it came to accessibility and inclusivity for disabled users, with seven out of the ten websites scoring way below average for accessibility. Only one of the websites had sufficient colour contrast, for users with visual impairments to view the sites, while just one was screen-reader friendly, meaning those using assistive technology would struggle to view the other nine sites.

In addition, most of the associations in Sigma's testing had considered the growing importance of online self-service. However, only half of them had online account areas that were easy to find, and two didn't have account areas at all. In addition, one of the sites' online account area was insecure.

Hilary Stephenson, managing director, Sigma, said, "While we only looked into a small sample of websites, our findings do demonstrate that many housing

providers are struggling when it comes to their online experience, which is understandable when you consider the budgetary constraints hanging over them.

"However, in the housing sector, a good user experience has the power to increase tenant engagement, improve customer service, cut costs and simplify processes, so it's in their best interest to think about how they might improve the online experience for tenants.

"Many of the websites we looked at had considered the importance of usability to some extent, but it was disappointing to see that so many failed to cater for disabled users. Plus, in light of the European Commission's new accessibility legislation, all housing providers should now be striving to offer inclusive digital services, regardless of their public or private status."



VOICE ANALYTICS - WHAT CAN IT DO FOR YOU?

Maureen Adams, Director of Customer Services & Operations,
Soha Housing / Lee Hayward, Assistant Director of Customer
Services, Soha Housing

Voice or speech analytics is still surprisingly new for housing providers, though widely used in the private sector. The latest Babel (2016) contact centre report, The UK Contact Centre Decision-Maker's Guide, states that only six per cent of the housing sector currently uses voice analytics. But with 19 per cent actively planning to do so, the sector's interest in customer analytics is growing.

All call centres hold customer-rich data. Almost all the business information we could possibly want about our customers is already coming through our call centres, so why would we not use it to sharpen up our business and improve the customer interface?

At Soha Housing, we have been using this clever software since 2015 and, with a combination of training, trial-and-error and intellectual curiosity, we have established ways to help us source issues, search voice recordings, embed interventions and instigate faster recoveries. By investing in technology, we use it to reduce repeat calls, resolve complaints earlier and build 'right first-time' responses.

With customer satisfaction levels at 92 per cent and costs low, Soha's reputation as a landlord is solid. Our staff have a reputation for getting things done and understanding our services.

Our 'voice of the customer' programme doesn't mean that customers get what they want at any cost, but that the business gets what it wants and needs, because it gets closer to the truth about a service faster to prevent business lag. How? By searching an index of 30,000 calls within minutes, rather than waiting for survey results. Calls are uploaded overnight so all information is current. Yes, the customers are often pleased and impressed with faster action, but the principle driver is business efficiency

in real time, alongside customer satisfaction; we don't see this as an either/or situation.

Most customer interaction analytics solutions use speech engines that are either phonetic or speech-to-text. In our system, all calls are phonetically indexed to allow the analysis to take place and we have no dependency on a language model and dictionary to identify words correctly. This allows us to access the entire content of calls, not just initially specified keywords and phrases as needed to enable root-cause analysis. Identifying clusters of terms gives us a starting point for deeper analysis.

We can search the rolling list of calls downloaded overnight and act on the results. The oldest calls are automatically wiped as new calls are loaded. Business interruption is minimised and interventions are instigated upstream in the business process.

With our customer service advisors handling anything between 250 and 500 calls per day, we know they are vital to the business. While they can recall and recount some of the best and worst situations, we really want to hear the issue from a range of callers to elucidate and validate the issue into either a one-off, a pattern or, at worst, a trend; we are looking for 'runners, repeaters and rarities' so that call volumes can be reduced.

Finding that one of our grounds maintenance team was struggling 10 days into the grass-cutting season last year saved us weeks of complaints, and we were able to liaise with the contractor concerned to get the service quickly back to a premium level within days, significantly reducing customer attrition.

There is certainly a place for traditional surveys but in comparison to searching recorded calls or waiting for results to be

analysed, analytics gets us there much faster and with the irrefutable evidence of customer feedback. Importantly, any dissemination of findings is redacted and anonymous.

So who does the searching? We put together a team of operational managers who know what they are looking for so that the impact on the IT team is minimised.

There is undoubtedly a discipline needed; listening to the calls at the point highlighted where the keyword appears, and honing searches by customer phrases rather than tech-speak certainly unlocks more evidence. Maintaining the momentum also drives success.

Nexidia, the company who provide the voice analytics software, trained our team to establish call searches that reflect the customer conversation so that "the contractor didn't turn up" takes us straight to the times, dates and locations at the relevant stage in the call.

When we find a problem, the intervention or 'fix' is identified with input from the operational managers to get to the root cause and, importantly, a sustainable solution. We are gradually driving out the seasonal service issues, so they don't reappear as a new problem to a new manager a year later. Nexidia maintains that interaction analytics isn't something you buy, it's something you do. We completely agree!

Since implementing the Nexidia software, we have centrally recorded all issues and resolutions we've identified to demonstrate the return on our investment. These service improvements are often linked to improving customer care or efficiency savings.

Understanding customer sentiment is crucial to understanding customer behaviours. Hearing how welfare reform

VOICE ANALYTICS - WHAT CAN IT DO FOR YOU?

Continued from previous page

affects tenants as it's rolled out and how our teams are responding has helped maintain our continued low arrears of 1.9 per cent. For example, understanding why some callers were reluctant to pay rent online helped to fine tune our approach to channel shift.

Finally, a level of trust is needed. With call-handler conversations now under scrutiny for breaks in a seamless service, we needed to make sure we avoided blame and instead recognised the good practice alongside the learning points for individual staff. Calls are quality assured to better understand talk

periods, silences and call durations. We also check our customer services team are adhering to scripts to help ensure a consistent and efficient approach to customer care. We have a coaching matrix and know which caller can be called on for which skill - training, negotiating, problem solving, technical skills or empathy.

Our involved customers love the directness of the process. They know that we can hear the emotion of a call where someone with a young child needs a new home or a tenant of 30 years finds themselves with a difficult neighbour. Any

significant issues that remain unresolved are taken to a meeting with the CEO who looks at the structural issues to decide if a change is needed in the business.

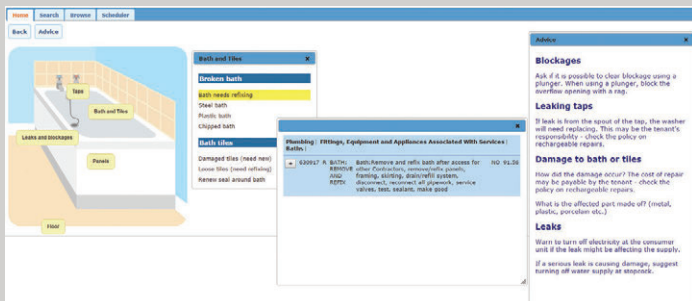
The customer experience tells us about our changing world and we see our business as a joint enterprise with valued customers. Their voice matters. That way we are all satisfied.

Maureen Adams is director of customer services and operations, and Lee Hayward is assistant director of customer services at Soha Housing.

SOUTH LAKES TAKES M3 FOR REPAIRS DIAGNOSTICS

South Lakes Housing Association is using M3 Housing's M3Central Diagnostics to enable more accurate diagnoses of its tenants' repairs requests.

In 2014, South Lakes formed a customer services team (CST) as the first point of contact for all repair enquiries. At first, the largely non-technical CST staff had difficulty accurately diagnosing repairs. South Lakes also decided to move away from a bespoke schedule of rates for repair items to the M3NHF Schedule of Rates to improve job costing. However, the housing provider was concerned that its CST staff would struggle to transition to the new schedule so it wanted a diagnostics tool to ensure an accurate diagnosis of repairs during the initial contact with a tenant.



South Lakes wanted a system that would give its CST the ability to quickly connect the requested repair to the correct schedule of rates item while on the phone with a tenant. At the same time, it decided to implement a new housing management system, Civica Cx.

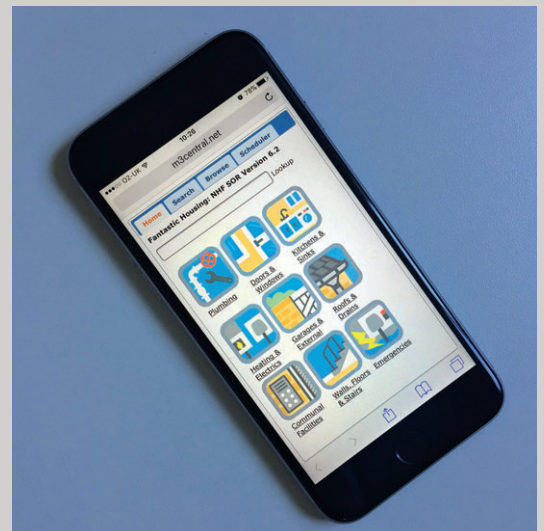
South Lakes chose M3 Housing's M3Central Diagnostics, having had experience of the M3 suite of products from its adoption of the M3Pamwin Plus appraisal and development tool. M3Central

Diagnostics provided integration with Civica Cx, and provided the functionality to configure and make real-time changes to the system without having to log support calls.

Testing of M3Central Diagnostics was tied with South Lakes' broader implementation of Civica Cx. Implementation of the housing management system took 19 months, and the decision was made to use M3Central from day one of the system going live.

CST staff can now directly launch M3Central Diagnostics from within Civica Cx, and run through a series of graphics while on the phone with a resident

to diagnose the repair. Staff can also adjust selected items and quantities before passing the repair back to Civica Cx, which then schedules the appointment using the DRS scheduling system.





WHAT NOW FOR DIGITAL INCLUSION?

Helen Milner, Chief Executive, Good Things Foundation

Digital inclusion isn't a new issue. The latest figures launched last month by Lloyds Banking Group as part of their Consumer Digital Index confirm that there are still 11.5 million people in the UK who lack basic digital skills. I've been banging the drum about the need for cohesive and coordinated approaches to delivering digital inclusion activity for a number of years, and I know a lot of people in the housing sector have been taking note.

But there's never been a greater need for us to do more than there is today, with digital exclusion becoming more and more entrenched. People who are left offline in today's society are more likely to be older, less well-educated, unemployed or to have a disability. And it won't come as any surprise to housing providers that many of them are living in social housing.

Universal credit continues to roll out, and its increased pace means more and more people are being expected to claim online. The requirement for all jobseekers to access Universal Jobmatch means many are struggling to avoid sanctions, putting them in precarious financial positions. And the Lloyds Consumer Digital Index found that on top of people saving £744 a year just by being online, through shopping, discounts, saving on utility bills or reducing costs, there is an additional 'digital dividend' of £444 alone from people using discount or cashback websites.

And it's not just about the financial stability of tenants. People without digital skills are missing out on a range of wider benefits, from connecting with friends and family, taking charge of their health, and engaging with the things that interest them. Our Reboot UK project revealed that, even among the most excluded groups, digital skills could have significant wellbeing benefits for individuals.

There are some fantastic examples of really great work happening within social housing to tackle some of these

really complex issues digitally-excluded people face. But for us to really close the digital divide once and for all, and to ensure that the most excluded get the skills that can change their lives, we need to be doing, and sharing, more. So I wanted to share some ideas of what's worked for us and those we work with.

Use innovative hooks

The one thing that we know works in digital inclusion is also the most difficult and the most time consuming to do. But engaging people as individuals based on the things that interest them is the most effective way of not only encouraging them to give digital a go in the short term, but to use it in the long term as well. Helping people to Skype with friends and family living in other countries, to research their family history or the local area, or to find videos of the music they love are all ways to engage people on a personal journey based on the things they're interested in, so they can go on to embed digital into their lives.

Find strength in numbers

We can all work better by working together, and through the 5,000-strong Online Centres Network, we're making a huge dent in the numbers of people excluded from technology through our shared mission and ethos. Organisations ranging from libraries and jobcentres to faith organisations and small community centres, as well as housing providers, make up the 5,000, but we're always looking to expand our club. We'd encourage any housing providers who aren't already part of the Online Centres Network to join. It's free, and there are a range of tools and resources that can help housing providers to do more, more effectively. Being part of the network means you can also attend our regular events, including our annual conference, and connect with other centres to share ideas and best practice.

We also have a 'specialist social housing providers' network' that you can join, to find resources designed especially for you. Being part of this network will also help you to promote your expertise

in supporting tenants to improve their digital skills; find out more at www.onlinecentresnetwork.org.

Work with the local community

The best examples of really effective digital inclusion practice in social housing are from providers who are partnering with other local organisations to reach further, deliver innovative and engaging learning content, and to bring the wider community together. All social housing providers should look to work with others in the local community, including Online Centres, libraries, local GPs, jobcentres and others, to co-design projects and approaches that use a multi-channel, multi-partner approach to really get to the hardest to reach.

Learn from others

The social housing community is a collaborative one and, because none of us can tackle the issue of digital exclusion alone, it's useful for housing providers to share their knowledge, ask questions and learn from others. The Digital Housing Hub is a great place to hear what other providers have done, and it's packed full of stories, questions and conversations, so do join up. If you have a question or are wondering about how to implement something, it's likely that someone else has been in the same boat so do ask away; take a look at digitalhousinghub.ning.com. Twitter is also a great place to connect with others, as well as events and other relevant forums; check out #digihousing for conversations and ideas.

Use existing resources

There are some great initiatives and platforms that can help to kick off or support your digital inclusion activities. Our annual Get Online Week campaign, running again this autumn, can provide the perfect first step for housing providers who have never done any digital inclusion activity before or who can't commit to running regular activities throughout the year. The campaign encourages a whole range of organisations to run one or several events during the campaign week to

WHAT NOW FOR DIGITAL INCLUSION?

Continued from previous page

encourage people to take their first steps with digital, with help and support to attract new learners. The campaign also benefits from high-profile coverage, meaning there's a real buzz around supporting people to get online during the campaign week.

Our Learn My Way platform (www.learnmyway.com), developed through funding from the Department for Business, Innovation and Skills and Department for Education, contains a range of online courses that can be

embedded within face-to-face delivery, so local providers don't have to reinvent the wheel when delivering digital skills activities. All courses and learning content have been built with learners, supported by expert partners including the Money Advice Service, Lloyds Banking Group, TalkTalk and more.

I know I'm preaching to the converted, as so many housing providers are doing great work, but the issue of digital exclusion can no longer be ignored. Digital exclusion is the newest form

of social exclusion, and we all have a responsibility to act now to tackle it. Our mission is a world where everyone can benefit from digital, but we can't get there alone. So I want to encourage any housing provider who hasn't to think about how they can play a role.

Helen Milner is chief executive of the Good Things Foundation.



INNOVATING TO TRANSFORM SERVICE DEVELOPMENT AND DELIVERY AT VIRIDIAN HOUSING

Ed Wallace, Research & Innovation Manager, Viridian Housing

Now more than ever, the social housing sector needs to embrace innovation to tackle the challenges we all face and help shape the services of the future. The social housing sector will look very different over the next 10 years as the boundaries of what we do change. Our core offer will evolve, we will use technology differently, and we will become more digital.

Innovation has an important role in driving this change, but developing a culture of innovation is not easy. It is important to find an approach that's right for your business, and it requires new ways of working and new skills. Then, even when you have done this, making sure this function responds to the changing needs of the business is an ever-present challenge.

Viridian established a research and innovation team just over four years ago. Initially set up to help establish our 'social impact' offer, the team now works with departments across the organisation. Our remit is focused on customer insight, service improvement and new product development. Wrapped around this has been a strong focus on customers and skills development.

Although we use a variety of methods and techniques, our core approach is easy to describe:

- Identify a challenge or opportunity and take the time to understand it in more detail;
- Develop ideas in response to what we have learned, not what we think we know;
- Then test the best ideas at a small scale to see what works and what doesn't.
- Interventions that do work are then scaled up with support from the wider business units.

We have had some considerable successes. Early projects included establishing our digital inclusion skills offer for tenants and developing an online affordability assessment tool that is now used by other housing providers. More recently, we have developed and launched the digital home-swap service MoveMaker; and we are currently developing a new affordable rent product for people under the age of 35 that includes some exciting digital opportunities.

As the scale and complexity of some of our projects has changed, so too has their focus. Increasingly, our innovation activities are helping to develop Viridian's digital offer to tenants. This has meant that we have had to further refine our approach and ways of working.

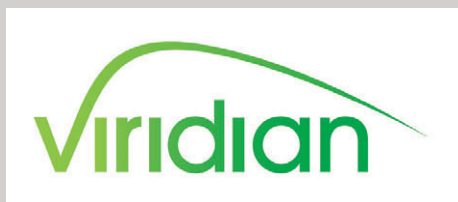
We have had an excellent starting point. Dominic Rogers, Viridian's head of IT, recognised the value of our approach early on, and understood that our digital platform is something that is enabled by IT, but not necessarily led by IT.

Our 'digital first' strategy sets out a clear vision for how digital can be used across all aspects of the business, how we will achieve this, and how our technology environment should be designed. Our approach is planned around wider interdependencies, including our expected merger with AmicusHorizon, and actively involves the wider business. After all, our businesses are always changing so this shouldn't be used as an excuse for standing still.

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INNOVATING TO TRANSFORM SERVICE DEVELOPMENT AND DELIVERY AT VIRIDIAN HOUSING

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Some clear principles guide our approach. Projects aren't just about adding a digital layer to what we do and instead look at the front- and back-end of a service. Why add a digital layer on top of a process that already we know isn't working effectively, when there is an opportunity to improve the overall solution?

The needs of the user and the quality of the user experience sit at the heart of everything we do, but this will always be balanced against the needs and demands of the business. We don't develop solutions for the customer in isolation from the needs of the business, because to do so increases the likelihood of failure.

Finally, design is important and any digital process we roll out must be intuitive and easy to use. We believe extensive instructions to guide you through the process don't make for a high-quality user experience.

To stand a chance of achieving this, we have had to further refine our approach to innovation and embrace more agile ways of working.

First, we have introduced defined roles that cover business, technical and management requirements at the programme and project levels. This has given the wider organisation greater visibility of high-level business planning, and empowered teams responsible for the delivery of a solution. We have found this means that the business is better placed to direct development of the solution, and is more likely to feel ownership of the solution as it evolves and transitions into live use.

We are also working hard to adopt a more iterative approach that encourages detail to emerge over time. Our approach deals with current and imminent business needs, rather than the more traditional approach that tackles all possibilities. This means detailed upfront work is avoided and teams are better placed to deal with the inevitable changes to business requirements. This also means solutions are more likely to have a better fit with business requirements, and are easier to integrate into business processes. The technology we choose has to allow for this approach.

We continue to use a variety of methods and techniques, but again this has evolved. We have bought service design skills into the team, we work much more closely with our colleagues in IT, and we have a much sharper focus on business model development and scaling strategies. We use proof of concepts to

understand and refine our requirements. Success at this stage gives us the first step towards a new product and it allows us to tender more effectively.

Being experimental with technology is important. One size doesn't fit all and solutions include our existing technology stack, other software as a service solutions, or building something new. We are also using low-code platforms to speed up prototyping work.

From a purist's point of view, the changes we have made at Viridian don't constitute 'pure agile'. This is hard to do when the wider business is not set up to work that way. We already have an eye on further refinements we can make and as we approach our merger with AmicusHorizon, we know our approach will need to evolve again.

Nevertheless, this way of working has sped up our approach, reduced the risks involved in innovation, and enthused the wider business as they see their ideas take shape. Looking ahead we hope this is an approach that will continue to add value and help the new organisation achieve its ambitious longer term objectives.

Ed Wallace is research and innovation manager at Viridian Housing.

Tai Calon's tenant engagement with Clearview



Tai Calon Community Housing is now using Clearview's Customer Engagement Suite, replacing the housing provider's previous use of either spreadsheets or even pen and paper to record all of their customer engagement activities.

Ross Watts, Head of Communities, Tai Calon Community Housing, said, "We had various difficulties with our customer engagement. It was quite hard to always view things on spreadsheets and it wasn't clear what we were actually measuring. We also knew that the good things we were doing weren't being captured; it was therefore difficult to know which activities worked well and which didn't.

"The Clearview system is extremely simple and therefore easy for everyone

to use. I would say its biggest selling point would be the portal because we liked the idea of an online self-service approach.

"We now want to start capturing a wide range of activities across the whole business, including being able to see how effective people think we are. Additionally, we want to be able to see who said what and what has been done as a result of what they have said."

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GETTING IDENTITY RIGHT IS KEY TO DIGITAL STRATEGIES

Stuart Young, Managing Director, Etive Technologies

The faster pace of digital transformation has led us all to review what we are doing as businesses, how we are doing business, and how we are digitally serving our customers. As housing providers and local authorities put more of their services online, we're seeing some great examples of creativity in the way that they are redeveloping their web sites and mobile applications.

Customers are being encouraged to carry out a variety of business transactions and activities online, which is saving housing providers and local authorities a great deal of time and money. These transactions are largely focused on the principle of 'My Account'; an online account for the customer to pay their rent, report a repair or anti-social behaviour and other low-level business functions. The information is not controlled nor owned by the customer. At the same time, in the real world, we are increasingly being encouraged to manage our own information and to use this to our benefit.

As more services and transactions move online, people are being encouraged to develop more one-to-one online relationships with a wider range of service providers. For each of these organisations, people are asked to 'register' their details and set up an account, each with unique credentials, using different processes and technologies, disparate authentication processes and ever more complex security procedures.

A recent US National Institute for Standards and Technology report found that on average employees authenticate themselves 23 times within a 24 hour period. If we sit back and think about it, how many different online activities do we carry out every day that require us to authenticate ourselves?

For the digitally and financially excluded, we are making it very difficult.

Legal standard of identity

There are a number of steps required to help the digitally and financially excluded to overcome the challenges of multi-service authentication and access, and the Government Digital Service (GDS) has been leading on this with Verify.

GOV.UK Verify is the new way to prove who you are online with the ability to establish who you are once and once only, so enabling people to easily access a wide range of government and local authority services.

Helping vulnerable people to set themselves up with a legal standard of identity enabling them to reuse their credentials to access housing and other public services has to be seen as the best route forward. Providing people with their own unique set of credentials to use and share with service providers not only makes it easier for customers but also supports a number of business efficiencies for housing providers and local authorities.



In order to make digital identity a reality for housing providers and local authorities, the question of how to reach the digital footprints of the demographic who are the highest users of public service must be answered, alongside the need to address behavioural change.

The OIX Discovery project, 'Micro sources of data, the role of the aggregator', involving Etive Technologies and the London Borough of Tower Hamlets offers a practical solution for the data gap challenge and addresses the business

case for the adoption of Verify for service providers.

Getting identity right

Getting identity right is key to a fully-functioning digital strategy. I believe that getting housing providers and local authorities to think beyond merely making small gains by giving customers a faster, cheaper or better online experience is a big challenge. A recent SOCITM report pointed out that "marginal reductions in transaction costs through cosmetic changes to the customer interface and so-called 'channel shift' have monopolised our thinking".

There are various levels of identity authentication which directly affect a person's ability to access more complex and expensive transactions. These levels range from Level of Access 1 (LOA1) up to LOA4. At LOA1, no real identity evidence is required but any which involves money will need a higher LOA and verification has to be to a legal standard, not a self-asserted level that is only applicable to one service provider. Just taking a picture of your customer, while useful, is not enough.

The business costs of developing a self-asserted identity are huge, leading to many failed attempts to design, develop and deliver services online, linked to one service provider. It's usual nowadays for customers to access multiple services from multiple service providers multiple times per day, week and month and need a simple and easy way to access these services.

Combined with this, as customers move between councils, housing providers and service providers their history is lost and we put them back through the process of having to reassert who they are and probably using a different process, technology and time period.

We need to give customers the tools to manage their own information. This is information and history that stays with them wherever they move, ensuring

GETTING IDENTITY RIGHT IS KEY TO DIGITAL STRATEGIES

Continued from previous page



a smooth and efficient access to and delivery of services. Empirical evidence demonstrates that up to 80 per cent of social housing tenants are capable of managing their own information online, already manage their own information

and want to continue to do so (source: Birmingham City Council UC Pilot, 2013).

Simply by giving customers control of their own information and enabling them to share it with multiple agencies and services providers using a defined identity standard will help housing providers and local authorities move beyond the confines of enabling tenants to pay their rent online and report a repair. There are also numerous business benefits for them to not have to

manage all this data, especially when GDPR comes into effect next year.

Customers want access to multiple services from multiple service providers yet service providers continue to provide inconsistent and complex user experiences and access. This ultimately makes it more difficult for the customer, so hindering real channel shift.

Stuart Young is managing director of Etive Technologies.



A FIVE-STEP DIGITAL REVOLUTION AT ASRA HOUSING

Suzanne Ralphson, Head of Programme Delivery, Asra Housing Group

Suzanne Ralphson, head of programme delivery at Asra Housing Group, shares key messages from her company's first digital open day, attended by more than 20 social housing professionals keen to drive digital transformation.

It was a privilege to welcome people from such a wide range of organisations across the country recently, to hear about Asra's experience in pushing forward digital services. And there was a lot for us to learn too, from great businesses like GreenSquare, Midland Heart, Nottingham City Homes and One Manchester.

We shared five critical lessons from our part in the digital revolution so far:

1. Support from the top

A clear vision, unwavering senior-level support and clear, efficient governance structures are all essential parts of making the jump to becoming a digital first organisation. Knowing that Asra's board and executive team are right behind us has empowered our team and other parts of the business to take an uncompromising approach, with free reign to sideline non-critical projects, re-engineer roles and retrain staff.



Resolute leadership from the top and strong decision-making have helped us to achieve a 10 per cent channel shift and be on track to reach 50 per cent by April 2019. Our communications and programme delivery teams now devote around 75 per cent of their time to digital projects.

2. Keep asking 'why?'

Organisations wanting to transform the way they work through digital innovation need to be absolutely clear about what they're trying to achieve and why. Is it about cutting costs, improving your customers' experience, dealing with a merger or something else? It's vital to keep on asking yourself (and answering) these questions. Otherwise, efforts can easily get distracted or drift off course. A project that's just aimed at modernising IT systems will deliver very different

outcomes to one that's focused on transforming customer service.

At Asra, our aim was simply to improve the range of channels available to our customers and in so-doing reduce the cost of contact. So we started by getting a detailed understanding of the true costs of different sorts of contact with our customers. Compared to a letter (£10) or a phone call (£5), online transactions are a bargain at around 30p each.

We were also anxious to eliminate the need for some calls in the first place. By constantly asking ourselves 'does this decision reduce calls?' Asra has seen a 16 per cent drop in phone traffic, and 10 per cent of all our customer contact is now digital.

3. Involve everyone

Digital transformation is not just an 'IT thing'. To achieve real, sustainable results, it needs to be a whole business issue, at the front of every department's mind. Success comes from engaging with and mobilising the entire organisation to design and deliver the digital future.

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A FIVE-STEP DIGITAL REVOLUTION AT ASRA HOUSING

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The lively debate we had about whether to feature an online 'refund button' to alert customers entitled to money back showed how important this cross-function involvement is. It helped us realise that, by automatically telling a customer whether they're eligible or not, it avoids unnecessary and wasted phone calls. So the button is there to stay, and we followed a similar approach in directing customers' use of live chat.

By consulting with and listening to the full array of well-informed experts from every part of our business, we've made better decisions and been able to push ahead digital developments much faster and better.

In its first year, the My Asra portal has:

- Built up 2,700 registered users;
- Attracted 200 new users every month;
- Handled 8,000 sessions each month;
- Completed 1,000 self-service processes each month.

4. Think and work visually

Using simple, visual methods to keep track of complex, multi-faceted projects helps stakeholders grasp what's going on and be aware of the progress you're making (or any delays and pitfalls). Enabling everyone to see the same,

shared, real-time view of where things are at greatly reduces the scope for misunderstandings and competing interests.

At Asra, we've found the humble Post-It to be one of the most valuable tools for planning and working out tricky problems. There's something uniquely accessible and empowering about being able to move those brightly-coloured stickies around until you find the right or best answer!

5. Keep it simple

This is probably the best advice for most things in life, but it definitely applies to digital transformation. You have to be sure that you aren't creating new problems while you're busy solving the old ones.

Whatever web, mobile, app or other system you create, it has to be as simple and intuitive as possible. Otherwise, you run the risk of shifting customers online, only to have them straight back on the phone because they can't find or work out how to do what they want digitally. Simplicity should mean timesaving – a huge incentive for both customers and the organisation.

Asra's housing registration process now involves just two steps, and our online rent statements automatically show payment reference numbers, to help



customers keep track of transactions. Prominent 'call to action' buttons and logical, easy-view layouts help customers to navigate through their enquiries. For example, to guide residents contacting us about car parking issues, we show photos online of what people can expect, what's acceptable and what's not.

These five lessons have helped us to make huge strides at Asra, and we're proud of our work as digital pioneers in the housing sector. But we've still got a long way to go and are keen to keep on sharing our journey with similar organisations.

Suzanne Raphson is head of programme delivery at Asra Housing Group.

Orchard goes 'beyond software'



Orchard has reported that its digital offering has grown with the launch of its digital transformation services.

The software provider has launched a new portfolio of digital transformation services, including helping organisations to assess where they are and where they want to be, mapping the

digital journey, engaging with customers or staff, defining what success looks like, or looking at how organisations can push their digital services forward and evolve their offer for their tenants.

Chris Masey, digital solutions manager, Orchard, said, "This new suite of transformation services reflects a

fundamental change in our working philosophy. An effective digital transformation approach underpins any housing provider's remit to deliver a value for money strategy and we now have access to proven expertise from outside the sector that can accelerate the path to benefit for all parties."



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THE DATA REVOLUTION AND BUSINESS INSIGHTS IN HOUSING

David Berrill, Business Systems Manager, GreenSquare

If you're reading this, you'll already be well aware of the issues facing our sector right now; there's no need to re-hash the causes and current symptoms. The focus now is on how we, as a sector, can adapt to survive the massively-shifting landscape.

Everyone in the sector right now is talking about creating efficiencies and introducing more lean processes in order to weather the storm, but how do we know which business areas to target? When we make changes, how do we know if they've been effective and improved our situation? Historically, a lot of those questions have been answered using instinct and intuition - if, indeed, they've been asked at all - but there's no longer room for the margin of error that entails. The reality is that many organisations are data-rich but insight-poor so how do we unlock the wealth of data we all hold?

There are three key factors that could make or break whether housing providers can successfully harness the data they hold.

1. Data warehousing and automation

We often have a vast array of data that is all related and yet sits in different systems and databases. To get a true picture of what our world looks like, we need to be able to pull the data from all of these databases together as much as possible. We may have information about our properties in our housing management systems, an asset management system and a finance system but that only allows us glimpses into genuine insights around those properties. The only way to see the whole picture is to pull all of that data together.

Data warehousing and staging is becoming more and more popular and it's easy to see why. By farming data out of source systems and organising it into a number of broad datasets, you can have a robust, validated way for staff to access a vast amount of data without asking them to constantly analyse or make links across systems themselves. Among the benefits on offer here are a

reduction in the time managers spend handling data and producing reports, a massive increase in change control and quality assurance around the data that managers do see and use for decision-making, and the opportunity to incorporate external data as well as just data from your own systems which can lead to a level of insight that internal data alone can rarely give.

2. Data visualisation tools

A data warehouse is all well and good but you can only really get the rewards from the hard work it will take to implement and maintain if you can offer managers and decision-makers user-friendly tools that they can use to access it. Better yet, you ideally want people to be served with the information they need rather than having to go looking for it or, worse still, spending hours turning big lists of data they've extracted into something meaningful.

That's where data visualisation comes in. Data visualisation isn't a new thing; I still remember the first time I turned some Excel data into a graph at secondary school twenty-something years ago, but the tools to make it happen have seen an incredible evolution over the last couple of years. Tools such as Microsoft Power BI offer excellent access directly into databases and other sources, coupled with excellent user interfaces for creating really striking, detailed dashboards and reports in no time at all. What sets these tools apart is the ability to drill through data from a simple visualisation all the way back to the source which means staff at all different levels of an organisation can be accessing fundamentally the same data. Again, this increases quality assurance hugely and opens up options around automation that just haven't been there previously.

Visualised data is so powerful for quickly getting to the heart of a problem, identifying exceptions and outliers and generally engaging people more with business intelligence than a traditional report does. Here at GreenSquare, using Power BI dashboards for our

IT helpdesk has already helped us identify and resolve problems that we hadn't even really realised were hurting us until the visualisations put it right there in front of us in a way where the trend couldn't be ignored. The ability to then drill contextually into the data around the problem made root-cause analysis quicker and easier than ever before, meaning we managed to put a proper solution in place within a day for something we'd been tackling piecemeal one case at a time for months.

I've painted a fairly simple, almost idyllic picture so far but we all know it's never quite that easy. Automation is a wonderful thing and using it to deliver visual dashboards is equally joyous, but there's always a catch, right?

3. Data culture

The first time I produced an automated Power BI report for a colleague, the first thing they said was, "that's amazing, but I can still change the numbers, right?". At the heart of this question was a knowledge that the data being put into the source system just wasn't accurate or reliable enough to be used to automate submissions, and that's where our data dream has the chance to turn into a nightmare.

Building a data warehouse or embedding a modern data visualisation and reporting tool are two fairly straightforward things; they take time, but they're tangible deliverables. Changing the culture of staff to understand the importance of accurate, high-quality data is a different beast entirely. However, of the three key points laid out here, this is the one that will ultimately make or break your plans for an effective insight-driven business.

If you want to automate the production of business intelligence, you need a really high level of assurance that the source data you're going to draw from is correct. That means facing the challenge of educating staff that they have to enter data in an accurate and timely way and that can mean having to make changes to business processes along the way. There can be no more signing

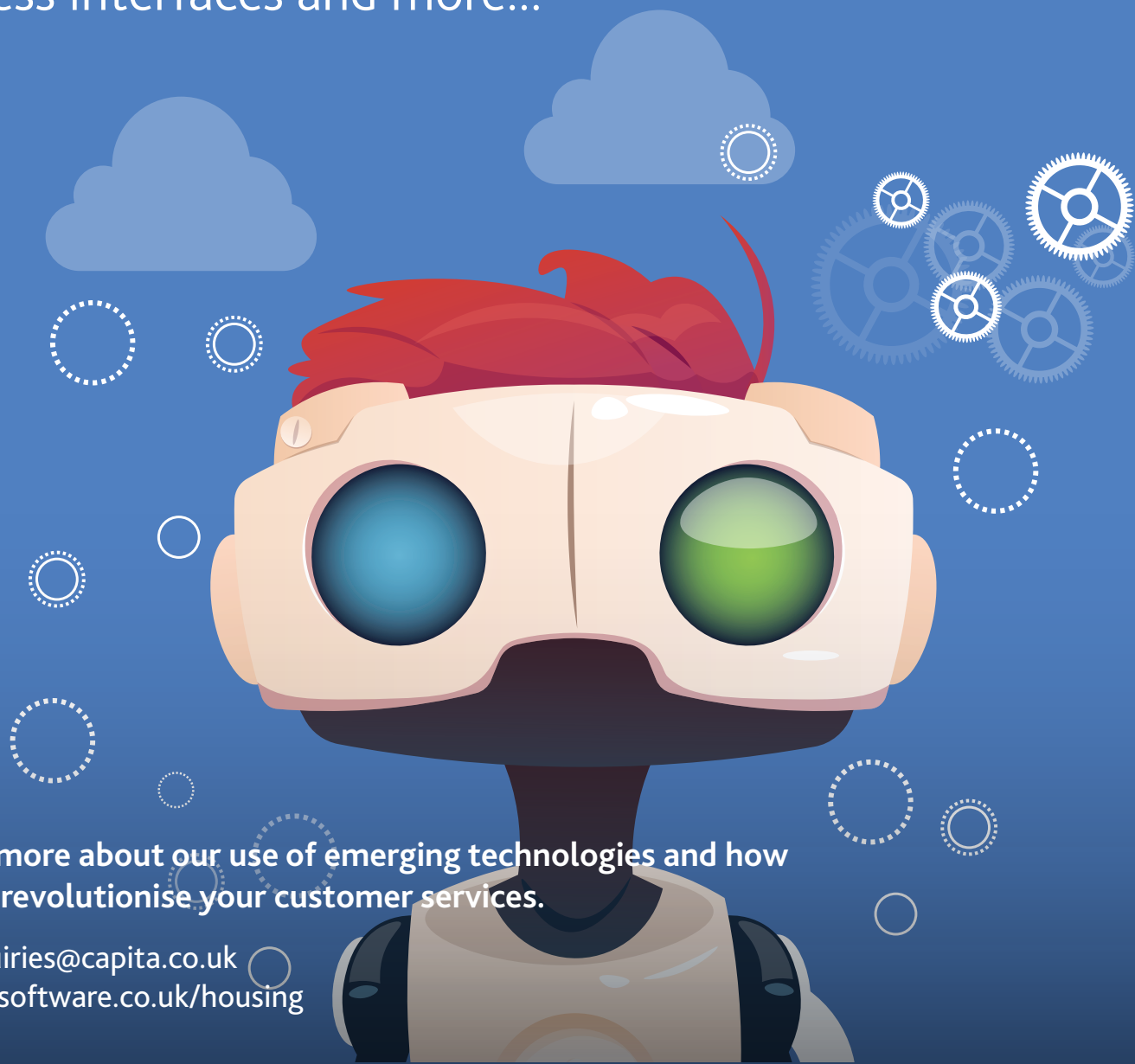
Continued on page 34

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THE DATA REVOLUTION AND BUSINESS INSIGHTS IN HOUSING

Continued from page 32

up new tenancies but not processing the paperwork for a few days after the event, there can be no more adding the same actual person to a database several times over because someone didn't bother to check if they already existed as an entity. Staff across the whole organisation have to understand that there is a direct relationship between the data they

input into a system about a single case, property or other entity, and the data that is populating a report on the CEO's desk that will guide them in their strategic decision-making.

The tools all exist to provide your business with exciting, intuitive insights. These tools can give your business the chance to make the right choices to

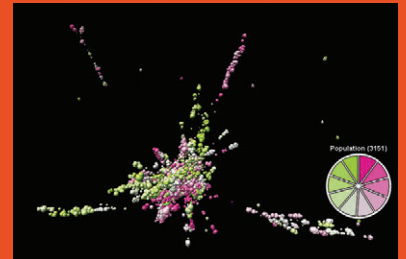
weather the current social housing storm but we all need to act fast to make sure we have a culture where quality data, genuine insight and evidence-based decision-making are at the root of all our actions.

David Berrill is the business systems manager at GreenSquare.



TOPOLOGICAL DATA ANALYSIS

Jason Lee, Founder & CEO, illumr



Computers are reasonably good at analysing large datasets, but there is one class of problem where they require a bit of help from puny humans – high dimensional datasets. By 'high-dimensional', we mean 'wide', as in lots of columns. When we have wide data, it's very hard to spot commonalities across a number of those columns. For example, if we have data from a large number of sensors, and all of them have something to say about what's going on, it's very hard to detect what is similar about all those readings when a particular type of event occurs.

A typically difficult problem is predicting cancer outcomes based on levels of gene expression. We have measures of hundreds (sometimes thousands) of genes, all of which interact to influence medical outcomes, such as survival rates, response to particular chemotherapies and growth rates. We also have thousands of patients, so we end up with a table that is hundreds (or thousands) of columns wide and thousands of rows deep.

It's impossible for a human to work out what combinations of levels of gene expression predict a given outcome. However, it's also a very difficult problem for a computer to solve because it has to conduct huge numbers of comparisons of all the possible data values; this is known as the 'curse of dimensionality'. A computer also needs to know what to look for if it's going to come up with anything useful in a reasonable timeframe, which pretty much means you

need to know the outcome before you run the analysis. A fat lot of good that is.

One answer to this problem is to combine human cognition with machine learning to circumvent some of the heavier computation. The computer organises the data in an unbiased fashion and presents it as a graphical model to the analyst. At this point, the (as yet) uniquely human skill of pattern recognition comes into play, and the analyst is able to spot shapes and clusters in the data that indicate something interesting is going on. The tricky bit is in getting the computer to present something that helps the analyst. The traditional approach is to conduct what is known as a dimensional collapse (or dimension reduction) on the data. This sounds like a cataclysmic event from an episode of Doctor Who, but is actually just a way to simplify the data.

Before looking at dimension reduction, let's look at a simpler example; a dataset with three columns of numbers. We can treat each row as a coordinate in 3D and plot the points. When the points are visualized, we can immediately tell if there is a random distribution (a cloud of points) or if some clusters are present. If we're getting clusters, it's a good indication that there is some commonality in the data. If we then colour-code our points based on some other variable (e.g. patient survival rate) we can immediately see if any of the clusters have a dominant colour. If they do, then we've found a pattern in our data that's worth investigating.

But what if I've a thousand columns – how do I visualise that? This is where the dimensional collapse comes in. Traditional approaches such as Principal Component Analysis (PCA) and more recent machine learning algorithms such as T-SNE allow us to collapse thousands of dimensions down to two or three while still (hopefully) maintaining proximity between the data points – i.e. if two points were close in n-dimensions, they'll also be close to each other in two or three dimensions. What this means is that if we see clusters in 2D or 3D, it's a direct result of there being some similarity in the data, and we may have something worth investigating.

Such approaches have been around for years, and work well for spotting clusters. They're not without their drawbacks, though. PCA can have the effect of introducing a bias to the data if not used carefully. T-SNE is a more neutral approach, but if the data is noisy, and the signal is weak, it becomes very hard to find the signal in a cloud of points. What is needed is a way to increase the contrast and reveal the patterns in a more obvious way to the user.

This is what topological data analysis (TDA) is all about. TDA attempts to build a topological model of the data by grouping and linking data points that are similar in n-dimensions. This can then be visualised as a network chart to show the 'shape of the data'. This has the effect of making the clusters more obvious to the human eye, as well as highlighting smaller clusters that would be lost in the

TOPOLOGICAL DATA ANALYSIS

Continued from previous page

noise in a traditional dimensional collapse approach. It also reveals a shape to the data which tends to draw the eye to particularly interesting features.

The market leader for this sort of analytics is Ayasdi, and they make some bold, but supportable, claims about what the shape of the data can reveal, such as circular plots are indicative of time-series data.

The company I work for (illumr) takes a slightly different approach, but still with an emphasis on using shapes to draw the analyst's eye to interesting aspects of the data. We don't emphasise TDA, though our approach results in a topological model of the data. Debate rages (as only mathematicians can rage) on the internet about how TDA differs from dimensional collapse. This is somewhat missing the point, as the end-result is still a dimensional collapse but with the topology of the n-dimensional shape retained and presented in 2D (Ayasdi) or 3D (illumr).

There are different ways to achieve this, but Ayasdi tends to focus on a persistent homology approach – extracting the overall topology and displaying it as nodes and links. In the case of Ayasdi, each node corresponds to either a single data-point or a cluster of points, depending on how they connect (the topology). The illumr approach results in a node for every data point, as the emphasis here is on finding weak signals in data.

For instance, illumr worked with HouseMark, a provider of social housing data for the UK. All 3,151 groups of households aggregated by postcode and age of lead tenant are shown visualised (each node = group of households).

The data self-organises by our algorithms to reveal the inherent structure of the dataset in 3D, independent of any human bias. Nodes in the figure are coloured by the number of repairs (where red = low no. of repairs; green = high no. of repairs). The dataset has some very definable clusters associated with the number of

repairs. By examining these clusters, we can reveal non-intuitive insights missed by other methodologies.

For example, there are important exceptions to the rule that maintenance costs increase with the age of the property. We identified and described a complex interaction between the age of the property, its size and also its type (house/flat), explaining a large proportion of variance in the number of repairs carried out.

This interaction would be impossible to identify without illumr's exploratory data-analysis guided by self-organising the data in 3D space. Most importantly, as the analysis is based on the natural inherent structure within the data, and not blind machine-learning, the interaction can be summarised in a human-understandable format.

Such findings are empowering the housing providers to better understand and predict the patterns of responsive repairs, thus helping to improve their operational efficiencies.

Jason Lee is founder and CEO of illumr.

INFRASTRUCTURE

Sovereign's managed services at Thrive Homes



Thrive Homes has reported on its ongoing relationship with Sovereign Business Integration Group for managed IT services since 2010.

Sovereign originally helped Thrive Homes with an interim IT service, then became the housing provider's in-house IT team, "blurring the lines between customer and managed services provider", as Thrive Homes put it.

In 2010, two years after Thrive Homes became independent from Three Rivers District Council, it realised its IT department faced significant challenges relating to customer service standards and decided to seek extra IT support.

During the back-office audit as part of its service improvement project, a weakness in the delivery of IT services was identified. Sovereign won the managed services contract and has been providing IT services to Thrive ever since.

Joanna Sedley-Burke, managing director, Sovereign Business Integration Group, said, "Our flexible approach led to the initial contract whereby we provided short-term IT support. The improved IT services delivery alleviated the pressure on Thrive, allowing them time to determine what they needed from a long-term IT supplier."

Following an initial consultation, the highest priority for Sovereign was making sure Thrive's IT systems were 'match fit' and ready to support its immediate customer delivery requirements. Once this initial stage was completed and Sovereign won the five-year tender, they began to research potential future solutions for Thrive's growing needs.

Six years after the initial project, Sovereign staff now comprise 90 per cent of Thrive's IT team, and the lines between the Sovereign and Thrive staff are now blurred to the point of being invisible.

Shaun McLean, director of resources, Thrive Homes, said, "Sovereign totally understands that customer service excellence lies at the heart of everything we strive to achieve. Because this is so important, it's the first and last consideration of everything Sovereign works on with us.

"At times, Sovereign's team has worked into the night, ensuring the right systems are in place to support some new software without having to cause daytime disruption to the networks. Sovereign's support is now so integral to what we do that a member of the Sovereign team was recently nominated for one of Thrive's employee awards."



DIGITAL CARE AND THE INTERNET OF THINGS

Carl Atkey, Chief Technology Officer, Appello

Continuing our series of features on the internet of things (IoT), Housing Technology interviewed Appello's chief technology officer, Carl Atkey, on the digital-care provider's view on the subject.

Why is the internet of things important?

From smart toothbrushes that can monitor your dental health to connected cars that know before you do that a part will need replacing, the internet of things has the ability to transform how we interact with devices, objects and appliances.

However, the real transformational potential of IoT lies in the different commercial or business models that can be applied. For example, it's one thing to make a smart toothbrush that can analyse how hard a person is brushing and motivate behaviour through reminders and incentives, but this can be copied. But what if the connected toothbrush came with a dental plan that rewarded the user on appropriate dental hygiene that can now be measured. This could then be supported with a subscription for additional products, such as toothpaste and other dental products, delivered on a regular basis. Now the business model has morphed into a recurring payment model, with additional revenue from insurance and consumables and an end-to-end service for the consumer.

But the housing industry, from design to build and provisioning, has been slow on the uptake. With more domestic appliances becoming digitally connected, appliances such as a fridge or television can provide information to aid and support the tenant. For example, smart devices on taps can monitor whether people are consuming enough water in a day, and smoke and carbon-monoxide detectors can constantly monitor air quality, giving warnings to people with allergies or breathing difficulties. Most importantly, housing

technology is being upgraded from becoming time-saving to potentially life-saving.

What are the benefits of IoT to housing providers?

The real benefit of IoT for housing providers is the significant increase in the management of information. With new digital technologies, we can now get much greater visibility of care needs. For example, we can now collect data that can be shared with healthcare professionals and families, that can directly influence assessment of residents' care needs.

At a time when housing providers are under pressure to cut costs with reforms, such as the government's proposal to introduce the Local Housing Allowance (LHA) cap in 2019, and merger activities on the increase, the ability to drive greater efficiencies and productivity is an attractive proposition. One way IoT can help is to provide analytics to drive predictive maintenance on equipment so the provider knows when something is likely to fail, before it actually does so, enabling proactive scheduling of works to be planned.

This can also be applied to digital telecare systems. As well as vastly improving response times to care monitoring centres, these systems can be remotely monitored for uptime and if a fault appears, the ability to diagnose and fix offsite. This brings not only greater benefits to tenants, because the risk of the system failing is greatly reduced, but also operational efficiencies in the reduction of call-outs for traditional systems where the engineer might arrive and can't fix the issue on the first visit.

Most importantly these benefits all lead to improved trust and wellbeing among tenants. My advice to housing providers and housing development managers is to look at how these new digital

technologies can be used to improve the provision of care to their tenants and meet their rising expectations.

Any thoughts on the possible plethora of devices (vs. standardisation) from different suppliers for different IoT applications?

The telecare industry is traditionally reactive and its monitoring centres are set up to respond to 'alarm events' generated by alarm units. Many IoT devices are now generating a wealth of data of residents' daily activities and sending them to monitoring centres. However, this information can't always be used by the monitoring centre unless there is suitable middleware in place that will connect to the IoT device and decipher the data for the telecare service. This middleware enables all the information to be brought together in one place, from the old legacy world of reactive alarms systems and the new world of IoT providers, such as FitBit, Weight Watchers and Microsoft Healthvault, for example.

What will IoT-based properties look like in, say, five years time?

In five years' time, you will start to see a lot more digitally-connected consumer products. There will be more white goods with smart capabilities where applications would enable the fridge, oven or microwave to carry sensors which record their use. For example, an opened fridge door might suggest food is being prepared and eaten, a water jug emptying may show a person is drinking and a flush sensor could suggest that a person is using the bathroom. These sorts of IoT devices will help monitor many long-term health conditions and provide vital information so that proactive care and support can be undertaken to improve the lives of many.

Carl Atkey is chief technology officer at Appello.



HOUSING IT EXECUTIVES MEET TO DEVELOP NEXT-GENERATION SHAREPOINT SOLUTIONS

Greensquare's group head of ICT, Rob Fletcher, reports on how a group of housing IT professionals met in London at the beginning of April with TSG at their London offices to discuss the integration of Microsoft Office 365 SharePoint Online with housing management systems.

The session was attended by representatives from GreenSquare Housing, Sentinel Housing, First Wessex, TSG, Knightstone Housing, Boston Mayflower and Joseph Rowntree Housing Trust. Sentinel and TSG presented an impressive piece of work that they have recently completed to integrate SharePoint Online with Capita OpenHousing. This included a demonstration and a review of the systems integration architecture and the methods used to achieve that.

Most housing providers currently use legacy document management systems and are increasingly looking at SharePoint Online as part of their migration to Office 365. The overall rationale is "why pay for two document management systems when you already have a top of the range EDRMS solution built in to your Office 365 subscription". The savings from this de-duplication are considerable.

SharePoint has come of age and is provided as software as a service. It

includes rich records management, archiving and disposal capabilities along with open APIs and the ability to process and manage either physical or electronic documents. A predefined and flexible metadata management strategy is key to a successful document management strategy and this was acknowledged during the meeting. As Sentinel's IT applications manager, Shaun Dickman, said, "It's all about the metadata". He is an expert in the field of document management and systems integration and led the TSG, Open Housing and SharePoint integration project on behalf of Sentinel along with Anil Majevalia, Sentinel's ICT director.

The concept of the SharePoint integration project is to offer deep and broad document management integration with a range of housing management systems. Tony Hughes, TSG's SharePoint senior specialist, was keen to point out that the same integration methods and principles are equally transferable across any housing management system as long as it can deposit both the document and document metadata into a SharePoint 'drop-off' library; Microsoft's open and accessible APIs make this a simple process. TSG then manages the onward processing of the document once it has been dropped-off. The integration includes

full integration with the housing system plus a secure e-docs capability surfaced within the customer self-service portal. The e-docs facility allows customers to access their documents and also submit their own in-bound letters and documents directly from within the portal or app.

This change of direction has been coming within the sector as organisations become increasingly interested in adopting the convenience of a fully-integrated and feature-rich Microsoft platform. Furthermore organisations are attracted by the savings from centralising around a single document management platform that is receiving monthly software updates and on-going feature enhancements including mobile working and integration with CRM strategies.

Finally, the GDPR deadline of May 2018 is looming and now's the time to get all that paper and digital content sorted out and provisioned within a system that offers strong records management, archiving and disposal automation.

If you would like to discuss this further then please send me an email (rob.fletcher@greensquaregroup.com).

Rob Fletcher is group head of ICT at GreenSquare Group.

WEST DUNBARTONSHIRE TO USE MOBYSOFT PREDICTIVE ANALYTICS FOR UNIVERSAL CREDIT



West Dunbartonshire Council has bought Mobyssoft's Rentsense software for predictive analytics to help it mitigate the effects of universal credit.

Ryan Chalmers, section head of revenues and benefits, West Dunbartonshire Council, said, "Rent collection is obviously a key priority for us and with the introduction of universal credit and other welfare reforms, we wanted to take a 'prevention rather than cure' approach.

"Like many local authorities, we had previously been reactive which usually meant that we were only actually helping tenants in financial difficulties possibly weeks after they first ran into trouble."

Mobyssoft's RentSense software enables housing providers to offer tenants greater support and often to intervene before tenants go into arrears or at the first stages of low-level debt, while also increasing rent collection rates.



BOARDROOM PERSPECTIVES – MOAT

Elizabeth Austerberry, Chief Executive, Moat

Housing Technology interviewed Moat's chief executive, Elizabeth Austerberry, about IT, building developments, mergers, and the housing provider's plans for the future.

What were your previous experiences of housing associations before Moat?

My background is in finance and consultancy so I have a lot of experience of working with all types of property companies and also with the government. I had worked with housing associations before Moat, but mostly to provide affordable housing reports to the government or help structure stock transfers. So I knew about the dynamics and the financial structure, but I didn't know as much about the inner workings of housing associations.

How do housing associations compare with the outside world?

All housing associations are different, but generally they are made up of really motivated people who want to do the right thing, rather than having a primary profit purpose. However, the art is to balance that sense of social purpose with clean, clear, fast delivery and a really professional outlook, which can be difficult.

What are the most pressing drivers for housing associations, internally and externally?

Different housing associations will give you different answers but for us everything we do is designed to help increase the number of homes we provide. We feel that in a housing crisis, the most important thing is to keep putting homes on the ground for those in need.

How has Moat's IT department changed since you started?

It's changing all the time. Like most housing associations, we have some ambitious plans for digitising our

services, which means an expansion of IT resource, be it internal or external. We've got a little catching up to do, digitally speaking. However, we are working to optimise the resources we currently have so that we can enhance our customer experience. Everybody now recognises the importance of efficiency, and technology is a big part of delivering that efficiency.

How is Moat as a housing association now?

We have 20,000 homes across London, Kent, Essex and Sussex and about a third of those are shared ownership homes – a very high proportion compared with the rest of the sector. We have a large development programme, and we're about the 30th largest housing association. Last year, we had around the 15th biggest development programme, the 9th biggest affordable homes programme and the 6th biggest shared ownership programme, so you can see that for the size of the company we create a lot of homes and that's what we want to continue doing. Development is very much in our DNA.

We have managed to keep our numbers up despite difficulties such as the government's rent cut, which has had an impact on our income. We'd like to make our large development pipeline even larger and we're constantly working on ways of doing that.

What are your thoughts on the politics of the government's new white paper?

There wasn't too much in the white paper aimed at housing associations. However, the liberalisation of planning could be a very good thing. The National Social Attitudes Survey recently reported that over 70 per cent of respondents would like to see more affordable homes being built in their areas, so it's a good time to look at freeing up the planning system.

What about the cost of land and the planning process with local authorities?

The cost of land is much more of a problem and we have to be more pragmatic about planning. However, decisions remain with local councils and local lobbies can stop things being built. While sometimes that's a good thing, quite often it's not. New homes need to go somewhere and everyone needs to play a part in making that happen.

Now that the government has digitised a lot of back-office functionality, will that be useful for Moat from a technology perspective?

It can be helpful, especially if you're a local housing association that has a very dense footprint. We have a large number of developments but relatively few of them are big. For a housing association with developments of 400 homes or more, I think it works better. I like the idea, though, of an online community where residents can give each other help or advice.

How do you envisage Moat's future with regards to mergers and takeovers?

I think everybody would give you a similar answer. If something made good sense and had a better outcome for customers, and potentially enabled the organisations together to help more people, then why wouldn't we look at it?

Technology plays a major role in these situations. You look like you have some very innovative things happening that could help.

The ability to migrate data would be essential; and we'd have to invest time and energy in making sure that the systems did speak to each other. But one of the good things about housing associations, unlike the private sector, is that people are pretty good at sharing. When they find a good idea, they want to show it to each other and talk about it.

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That's probably a lot easier to do in our sector than in others.

How involved should a CEO of a housing association be in the technological decision-making process?

I think at very best I could be considered an amateur or possibly an enthusiast when it comes to IT. It's about actually listening to the business arguments, the business case and taking the right advice from internal people, external people and others in the sector. While my technical advice might not be of any use, I would be able to tell you what I wanted the output to be rather than exactly how it would work.

We have a very good IT director, and I trust him to make the right recommendations, which we would then discuss. I do think that there's also a balance to be struck between pragmatism and always looking for the perfect option. If a product meets 80 per cent of your needs, you have to ask whether 80 per cent is good enough. I think that's where the CEO maybe has more of a role to play.

How is the relationship between you and the IT director?

It's great. We have a very flat structure here, everybody talks to everybody, people are in and out of each other's offices all the time, and I would expect to know what he's thinking about, what he's worrying about, and what challenges he has. I would expect him to be open about asking for the resources he needs and pragmatic about how to deal with it. Our IT team actually sits within finance and corporate services; but there's very little silo working at Moat and of course IT is integrated in everything we do. So I frequently catch up with our IT director, as much out of curiosity as operational decisions.

Do you see IT as a cost or an investment?

I see it as an enabler. I think cost versus investment is a slightly odd way of doing it, so for me technology enables us to work effectively and we decide what level of enablement we need at different times. We might be making a substantial investment now but the questions for me are what would it enable, how will that make us more effective and will it be cheaper? Will it mean we need less people or will it mean that we can focus people on what we actually need them to do? So I would always say it's an enabler.

Does the internet of things excite you in terms of the ability to manage your housing stock?

It does excite me, and it's something that we can't lose sight of, but actually it's about building things up incrementally as well. We have quite a lot to do in terms of improving our own ways of working and improving our customer experience before we devote a lot of time and resource to the next generation. So it's always a balancing act because you don't want to get to the end of what you're doing now and suddenly stop; it's an evolution, not a revolution.

With the advent of people living longer, what about care homes?

We only have a limited number of supported and retirement schemes and in most cases we are the landlord, and we contract out the care if more care is needed. But we know we're going to be housing people who are getting increasingly older because the population is getting increasingly older and we need to be prepared for that.

How can you see Moat moving forward over the next 5/10 years?

Providing more homes is at the heart of everything we do, so our strategy will be

to maximise the delivery of new homes. We also want to be much clearer about what our relationship with our customers is, what they expect of us and what we expect of them; so our offer will be much clearer to each person we provide a home to.

We want to make ourselves easier to do business with, for both customers and partners, and technology will play an important role in that. But we'd love to be more innovative – not just in a technological sense. We'd like to put in place our own rented product over time; but that won't be to the detriment of other tenures. We want to continue housing people in different types of housing need, so our focus on affordable home ownership will remain vital to who we are and what we do.

When you look back, what do think about your time at Moat?

It's the most rewarding job I've ever had by a mile, and I've had a few. It's good to be able to feel that together we've all made a difference to people's lives and it's a great bunch of people to work with. If you ask any of our people to do something, their first reaction is to ask how we can make it happen, not how can we not make it happen. I've worked in plenty of places that were the other way around.

Elizabeth Austerberry is chief executive of Moat.



HOW AGILE BUILT SUCCESS AT YOUR HOMES NEWCASTLE

Geof Ellingham, Director, Agile Business Consortium & former head of IT, Your Homes Newcastle

Adopting the principles encompassed by the Agile business philosophy has helped Your Homes Newcastle improve productivity, create a more positive culture and speed up delivery times, explains Geof Ellingham, the organisation's former head of IT and now director of the Agile Business Consortium.

By way of background, Your Homes Newcastle is responsible for managing homes on behalf of Newcastle City Council. Established in 2004, YHN manages over 27,000 homes in line with the government's Decent Homes standard, and provides a range of support services for the council.

Our challenge was that the large number of concurrent projects in the IT division of YHN made it difficult to establish priorities, and management involvement was significant. As the then head of IT at YHN, it was clear that we couldn't carry on doing things in the way we had always done. Digital transformation was moving ever faster, and it seemed we had to do everything faster just to keep up.

In our joint work with the council on digital transformation, the team had come to believe that Agile techniques, and in particular the AgilePM project management framework, might offer us a more efficient and robust way forward.

What is Agile?

Developed by the not-for-profit Agile Business Consortium, AgilePM combines the rigour of a project management framework with the flexibility and empowerment of the Agile philosophy. It breaks projects down into smaller components and provides a structure to prioritise those elements of most value to an organisation, helping deliver earlier benefits and reducing time-to-market. Since it was introduced in late 2010, more than 55,000 people around the world have been trained and certified in its approach.

AgilePM's eight principles are:

- Focus on the business need
- Deliver on time

- Collaborate
- Never compromise quality
- Build incrementally from firm foundations
- Develop iteratively
- Communicate continuously and clearly
- Demonstrate control

Implementing an Agile approach

We knew that having support from our senior executives and stakeholders would be important if we were to 'go Agile' successfully. It helped that central government was mandating the Agile approach for all of its digital work.

In April 2015, I took on a discrete project for NCC and agreed with them that we would implement Agile delivery. The challenge was to convert the council from cash-based council tax payments to a fully digital payments system. The original goal was to achieve this within nine months, but the transformation was completed within six; Agile had made a real difference.

At first, our knowledge of Agile was limited to some basic techniques but when we became aware of AgilePM we put around a dozen people through the Foundation qualification course. We also ran Agile awareness sessions for our senior executives and management teams. These were the first steps towards embedding Agile thinking throughout the organisation.

We realised that to benefit fully from Agile, we would need to engage in a cultural transformation, rather than simply 'doing Agile'. During the remainder of 2015, we restructured the IT organisation in a much flatter way, so that self-organised teams could genuinely be empowered to effect delivery. By the start of the next financial year, 100 per cent of IT projects were being delivered using AgilePM.

One of the ways we were able to demonstrate the value of Agile to business leaders and non-project management colleagues was by showing them how tools from AgilePM, such as

MoSCoW prioritisation (which breaks projects down into Musts, Shoulds, Coulds and Won'ts to achieve an agreed project that can be delivered within the required time constraint), could offer value in a broader context. Taking this approach was critical to our success in embedding the principles, because teams could experience for themselves that Agile worked, rather than simply being told it would.

By August 2016, the IT division of YHN was truly Agile, with an expectation that improvements would continue to evolve. We reviewed what had been achieved, what was working well, and what could be improved. As a result, we stripped back the process for small, fast-turnaround changes, reserving the AgilePM whole lifecycle approach for those projects lasting for longer than four weeks.

It's expected that the organisational structure and processes at YHN will continue to evolve to meet the needs of a fast-paced environment where change is now the norm and new challenges need to be met. This is the nature of Agile.

How Agile helped YHN

Agile helped us to achieve far more productivity than normal from our available resources. By setting priorities based on genuine value aligned to business goals, we found that certain tasks could be delayed or simply not done. This freed up our capacity to do other things.

In addition, the IT department enjoyed a more positive culture and worked faster.

In the new organisational structure, the IT team were working hand-in-hand with their business colleagues in new directorate groups. This broke down the 'us and them' culture where separate organisational functions had been quick to blame others when goals were not reached.

Geof Ellingham is a director of the Agile Business Consortium and former head of IT at Your Homes Newcastle.



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EMERGING TECHNOLOGIES IN SOCIAL HOUSING: BOTS AND BEYOND

Stewart Davison, Head of Business Development for Capita's housing business

With the technology now surrounding us resembling gadgets from the pages and images of science fiction, it can sometimes be too easy to dismiss these technologies as fads or 'gadgets for geeks'. Instead of passing on these technologies, shouldn't we pause to see what these innovative products and applications could introduce into the social housing space?

I recently delivered a seminar session at the Housing Technology 2017 conference on a number of emerging technologies that I thought we should begin to investigate. It was certainly an eye opener to me to find the room packed and with people standing in the aisles for a topic that some may have thought a bit 'fringe' so it can't be said that those in housing are dismissing emerging technologies, rather that the interest certainly seems to be there to discover more about how these devices and services could be adapted and used.

This article will focus on a few of these technologies, starting with the emergence of headless user interfaces.

What is a headless user interface? A simple definition is that it's software capable of running on a device without the need for a graphical user interface. Common examples recently have been Apple's Siri, Microsoft's Cortana, Google's Assistant and the new kid on the block, Alexa from Amazon.

This type of verbal interaction with technology brings to mind HAL from 2001 or KITT from Knight Rider, but the reality is that many of us have used one of these digital assistants, whether it's asking about the weather, cinema listings or just whether they are Skynet or not! These types of interaction glean answers which require far less 'point and click' style navigation through search results and websites.

Natural language processing (NLP) is entering the mainstream and the NLP-empowered virtual assistants could eventually change the way we seek information online by steering us away from traditional apps, many of which are used more and more sparingly.

Gartner recognises the imminence of language as an interface, predicting that by 2020, 30 per cent of browsing will be screen-less, so the need for the more traditional keyboard- and mouse-based interfaces in systems will begin to tail off.

So, is it too far-fetched to see these headless user interfaces in a social housing context? Perhaps we could think about those tenants and residents excluded from digital channels due to low IT literacy. Perhaps it's a more suitable digital channel to allow verbal communications, assisting those without that ingrained sense of how to navigate online, allowing them the benefits of consuming housing services digitally.

I have already been talking to some housing organisations and met Shane Griffiths, head of IT at Coastal Housing for a discussion on this technology. He said, "I can see great benefit in the area of social and elderly care, where daily calls are made to tenants just to ensure they are up and well, which could be exchanged for an Echo Dot for the tenant to report 'Alexa, tell Coastal I'm up and well' or 'Alexa, ask Coastal to call me'. This technology is also the next evolution in emergency care; no longer would we need to ensure our elderly relatives were wearing their alarm pendants – they could just ask Alexa for emergency help."

Capita has already been experimenting and creating proof of concepts using Amazon's Alexa. So far, it's about driving people to make simple enquires, such as what their current rent balance is,

how much is their next rent payment and when it's due, plus when their next appointment is.

However the potential exists within these technologies for tenants to pay an amount of rent, report a repair, ask for a call back, make an appointment, change an appointment – all of the sorts of things that can be done now via a tenant portal, app or SMS. This type of technology could prove particularly useful for those who find tablet and app technology confusing or difficult; why spend ten minutes on a tablet when you can request a repair in thirty seconds?

As well as talking about Alexa, I also discussed the rise of bots that communicate with other users of internet-based services, via instant messaging-type apps or via chat dialog windows, otherwise known as 'chat bots'.

The increasing use of chat bots has interested some of the big players such as Microsoft, and led them to conduct studies to understand better how people actually use messaging apps and services. Microsoft's own study found that 85 per cent of smartphone usage is channelled through just five regular apps, all of which had a strong element of messaging. This led Microsoft to state that rather than try to compete with these 'top five' apps, it suggested offering a chat bot service on top of an existing service such as Skype, Facebook Messenger, Apple iMessage or Whatsapp.

It's surprising how many chat bots are already out there, interacting with the general public. For example, Natwest has been trialling a chat bot for a while, as well as some of the new disruptive tech giants, like Uber, who have embedded a bot in their chat app. Chat bots can even now support you in ordering a pizza!

EMERGING TECHNOLOGIES IN SOCIAL HOUSING: BOTS AND BEYOND

Continued from previous page

Getting closer to where we are in social housing is the embedding of a chat bot using machine learning into a proposed 111 NHS app. Capita has been working on this bot with the NHS for a while and it led me to think how a bot could guide someone through the process of making a housing application, logging a repair or even using a bot to provide low-level advice.

We've created an example of a repairs logging bot that we have shown a couple of housing organisations as a proof of

concept, and even this fairly limited bot has already exposed the promise and potential that bots could bring within the social housing sector.

It's early days for this technology, but then again, the rapid rise of the use of bots in the wider world means that perhaps we shouldn't be complacent in social housing and instead look to embrace a potential opportunity that could see lower level enquiries and transactions shifted to a bot-managed

digital channel, or posed to a digital assistant like Alexa, freeing up skilled humans to deal with those tricky and sticky situations we come across in social housing every day.

Stewart Davison is head of business development for Capita's housing business.

The Internet of Things in Housing 2017/18 report

Housing Technology, in partnership with the University of Reading and the EU's Cocoon project, is publishing a brand-new 'Internet of Things 2017/18' report in September 2017.

Based on the EU's Cocoon project on cyber security and emotional psychology in the context of the internet of things, this will be the first significant report on the internet of things in the UK social housing sector.

The report will feature brand-new, exclusive research and a survey of how housing providers anticipate incorporating the internet of things into their operations, as well as case studies and articles from housing providers and IT suppliers who are already ahead of the curve with the internet of things.

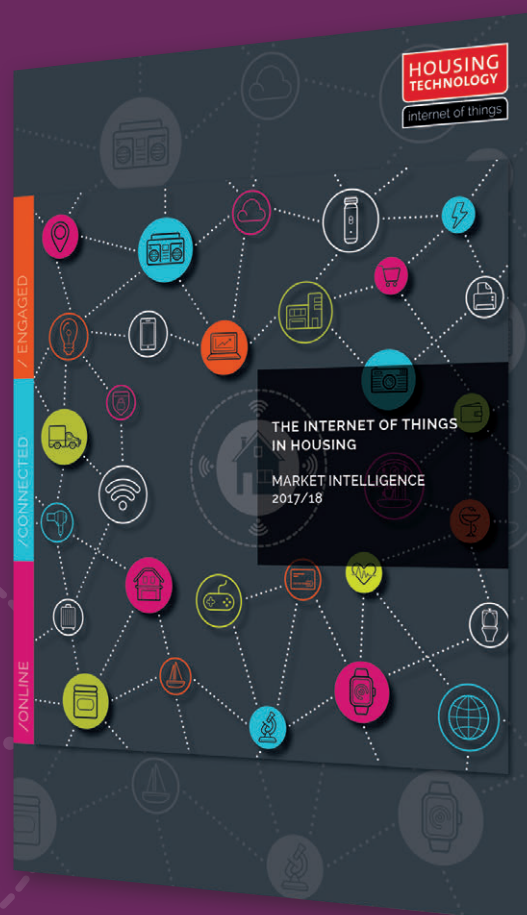
The report's content will include:

- The results of an online survey into what housing providers are doing about the internet of things;
- Exclusive content from the EU's Cocoon project;

- New research from the University of Reading on the internet of things in social housing;
- A feature article on best practice for implementing internet of things-based programmes;
- Case studies and contributed articles from leading housing providers and IT suppliers;
- Profiles of selected housing providers and IT suppliers' internet of things strategies and offerings.

If you are interested in contributing to the report, please email alastair@housing-technology.com.

The Internet of Things 2017/18 report is being published to coincide with our forthcoming event in October at the BT Tower in London (see page 46).





HORATIO THE PLANT, BARCLAYS' EAGLE LABS AND THE INTERNET OF THINGS

Richard Holland, Head of Business Solutions, Genesis Housing Association



This is Horatio, a plant who has had a troubled life. He was displaced at a very early age, ripped from the only roots he knew. Neglected and not watered for days, and with little hope to achieve his aspirations. Then, one day, he was transferred into the pot you can see here and rescued by the Eagle Labs. Horatio, like most younglings, has dreams and aspirations. He wants a naval career. To be a captain of a star destroyer, leading the fray against any modern foe. His friends, who were also rescued by 'The Eagles', disagree of course, especially Brian who just wants to travel the world. Horatio and Brian had many disagreements, all friendly banter, but Princess Leia was not amused by this at all. She had a rebellion to run after all.

This is Barclays' Eagle Innovation Labs. Genesis Housing Association was invited to attend workshops on digital disruption. How do Horatio and Brian fit into this, you may ask? Well, this is how the day started. We were each given a plant and told to name them and give a 'back story'.

Next, Barclays explained their own back story – why had a bank in the middle of Notting Hill in central London been transformed into the Eagle Innovation Labs? This is digital disruption. Barclays, like many banks, has increasingly seen its

customers use online and smart apps for banking transactions. They aren't going to their local high-street bank and they are making fewer phone calls. As a result, the high-street bank is in decline. At the same time, Barclays has recognised that some of its customers, particularly small business customers, are now creating digital businesses – online shops and YouTube-style businesses. Barclays wanted to support, nurture and provide spaces for them to innovate and to grow and fulfil their dreams. They also wanted to push digital and educate. Inside this Lab they have all sorts of smart things. Sensors, Raspberry Pis, Microbit and digital 3D printing – smart-tech lying around all over the place. This lab is one of the nine Barclays has set up around the country in former branch spaces.

You're probably thinking about how this relates to Horatio, Brian and Princess Leia? "The challenge", the Eagle from Barclays said, "was to design a self-watering mechanism for your plant using the sensors and microprocessors located in the lab".

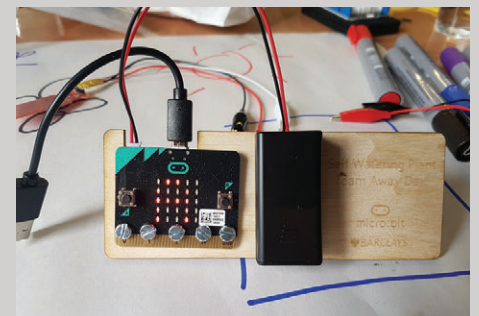
As the only IT guy on the course, I was in my element. We also had people from HR, procurement, contact centres, care and support, and income services. All looked rather apprehensive when asked to play with smart-tech. Barclays didn't leave us to our own devices though, they guided us through the day.

We hooked our plants up to:

1. A water sensor to measure how dry the soil is;
2. A small electric pump submersed in a cup of water;
3. And a Microbit.

What's a Microbit? It's a mini-processor that can be programmed using simple languages, such as Blockcode or Python. It was developed by the BBC to help children learn to code. They are giving them free to all year-seven pupils in

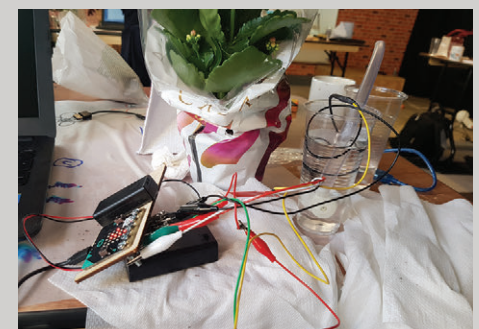
schools across the UK. The photo shows the Microbit connected to a battery pack. That's all the power it requires – 2x AAA. Any more than that, we were warned, and it might blow up. Next, we practised coding the Microbit. A couple of inputs, a message and a picture of a smiling face; the drag-and-drop interface made it very easy to get started quickly.



Then we were ready. It was time to write the code which would:

1. Read the sensor and transmit whether the soil is dry;
2. Turn on the pump for 10 seconds and water the plant;
3. Loop and check whether the soil is dry;
4. Stop and send a message when complete.

That's it. The remaining part of the afternoon was devoted to coding this script and playing around with the Microbit until the whole system was ready to water.



Here's mine above, completely hooked up. No one was fazed. Everyone completed the task, and I mean everyone. Even Procurement, and we

HORATIO THE PLANT, BARCLAYS' EAGLE LABS AND THE INTERNET OF THINGS

Continued from previous page

did this whole exercise in a day. It's so simple.

Everything you see in the photo, minus the batteries and the Microbit, was cheap. Also, this is tech that is ready and available in the market and has been for some time. You can connect lots of different sensors into the arrangement. You can even buy kits with instructions.

The Microbit is Bluetooth-ready, and can sense temperature and movement. I can connect it to my smartphone or a speaker. I could play classical music to Horatio through my Microbit when he needs soothing. Other microprocessors are more powerful and can connect to the internet too. Can you imagine the possibilities?

We could use this sensor to trigger repairs automatically, for example, with boilers. This could send a message through our case management systems and on to our gas contractor to make a fix.

We could use this information to provide intelligence on our homes. Imagine hooking up a humidity sensor or a damp sensor. Imagine actually being able to resolve damp problems before they start?

This is Smart Homes. It is achievable and it is not something from science fiction or Star Trek. It is real and available now.

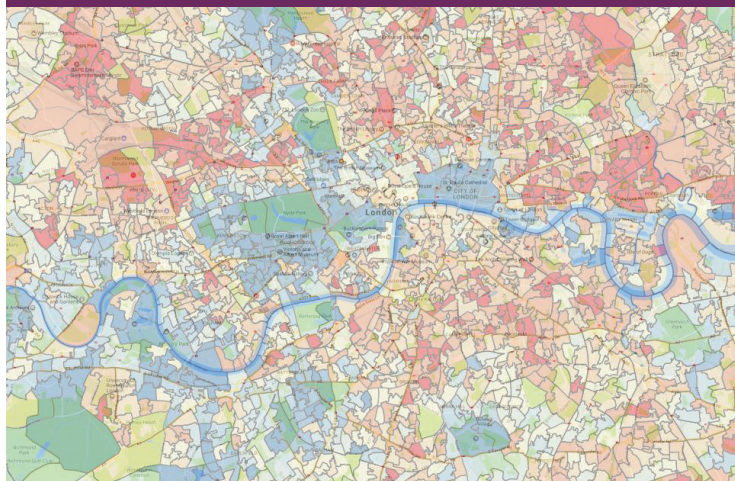
Horatio is now at home. I introduced him and the Microbit to my seven-year old son. He is now thinking of ways to create automatic things around the home; a

self-opening window or something to turn on the television automatically (although I think someone beat him to that). He has already dismantled the Microbit, put Horatio in a corner and started coding!

Horatio's dreams have just been disrupted by a seven-year old boy. Oh well, back to watering him the old-fashioned way, by hand, with a watering can. Alas, Horatio!

Richard Holland is head of business solutions at Genesis Housing Association.

GIS housing specialist joins Oxford Data Consultancy



A sample map of indices of multiple deprivation which can be used to analyse levels of deprivation in any areas of a housing provider's stock.

Rick Thompson, a leading GIS officer working with considerable experience in the social housing sector, has moved from his role at Trafford Housing Trust to join Oxford Data Consultancy as its account manager and GIS consultant, charged with the responsibility of helping housing providers improve their operations through the use of GIS.

In his three years at Trafford Housing, Rick moved the organisation from one that knew nothing about GIS to a housing provider that now takes GIS seriously within areas across the business from asset management to neighbourhoods and developments. The trust is now seen as one of the leading associations in the use of GIS for day-to-day business process design and using spatial analysis to inform strategic decision-making.

Thompson realised early on that very few housing providers actually had anything to do with GIS so he was instrumental, along with Alex Hill at Plus Dane Housing, Steve Litchfield at Orbit and Andrew Bradley from Sovereign Housing, in re-establishing Gi4 Housing, a user group for housing providers who were already using GIS or thinking about using GIS.

Thompson has previously worked for Cheshire Police as its GIS administrator where he led a force-wide GIS procurement and implementation project and a CCTV mapping project which achieved national recognition. For his efforts at Cheshire Police, he received a Chief Constable's commendation as well as a medal from the Prime Minister for his assistance in the Olympic Games Torch relay.

Switchee in the Future 50



Switchee, a provider of smart thermostats for social housing, has been included in Real Business' Future 50,

an annual list of the UK's 50 most disruptive and innovative companies.

Switchee is the only social housing-related start-up in this year's Future 50. Since its inception in 2015, Switchee has been working with a number of local authorities and housing providers, such as The Royal Borough of Greenwich Council and Peabody, to produce a smart thermostat that meets the needs of housing providers and their tenants.

Switchee aims to use data to save both tenants and asset management teams money by tackling fuel poverty, the energy efficiency of housing stock, and the lack of key data for housing providers.

Switchee uses the occupancy of properties to optimise heating settings, reducing tenants' energy bills and ultimately helping combat fuel poverty. The same data is used to provide housing providers with analytics that show KPIs and can rank properties by mould risk, insulation quality and fuel-poverty risk. This information highlights potential maintenance issues and allows asset management teams to proactively intervene before maintenance costs escalate.

Ian Napier, chief commercial officer, Switchee, said, "We're thrilled to be considered one of the UK's most disruptive companies for 2017. Over the past two years, we have built strong relationships with more than 15 housing providers and local authorities. We have an exciting product that provides clear benefits for both landlords and residents."

Yogesh Gohil, head of technology, Flagship Housing, said, "Switchee is a fantastic, simple and innovative product that has greatly enhanced our understanding of property performance. Our residents have been highly receptive to the introduction of a piece of smart technology into their homes that can reduce their energy bills."

HOUSING TECHNOLOGY & BT – THE INTERNET OF THINGS 2017



Housing Technology's CxO-level event, 'The Internet of Things 2017/18', will take place at the BT Tower in central London on Tuesday 10th October 2017. The event's speakers and sponsors will be announced in July 2017. Registration is now open on our website.

Why Attend?

- Learn new things and be inspired by powerful speakers;
- Increase your visibility of what others are doing;
- Connect with other key influencers and CxOs;
- Build on and begin relationships with new IT suppliers;
- Have fun and enjoy incredible views from the top of one of the world's most iconic buildings.

The Internet of Things 2017 event is being run in parallel with our forthcoming report on the same topic (see page 43).

**HOUSING
TECHNOLOGY**

internet of things



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