

HOUSING TECHNOLOGY™

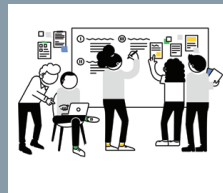
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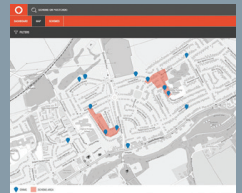
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Housing Technology 2019

Our biggest & best yet!

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HOUSING TECHNOLOGY 2020
4-5 March 2020 | Oxford

HOUSING TECHNOLOGY
2020 CONFERENCE AND EXECUTIVE FORUM



AAREON SMART WORLD

... AND YOUR CUSTOMERS

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The most important relationship in the social housing industry is that between landlord and customer.

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For more information visit www.aareon.co.uk or contact your account manager.

WIDENING YOUR HORIZONS

After the recent Housing Technology 2019 conference at the beginning of March, a number of new trends are emerging that apply to most housing providers and almost all software suppliers to the social housing sector.

Decoupling applications - Housing providers are beginning to accept that their myriad business applications (even their relatively new, web-based services) as well as their legacy applications will always present an almost-impossible integration challenge. Growing numbers of housing providers are therefore developing a web services-based middleware container around their existing applications and then using that container to act as a de-facto single instance of all their data and datatypes to power a highly-performant presentation layer of 'floating', application-neutral services, primarily for front-office and customer-facing services.

By decoupling the individual applications from the endless variety of end-user 'use cases', they are then free to rapidly trial, fine-tune and roll out new services, without worrying so much about the nuances of, say, the direct integration of their housing management, finance management and mobile working applications.

Non-housing IT - As is widely known, products from a relatively small number of software providers (and associated consultancy/services companies) are used by almost all housing providers, predominantly for their 'traditional' business operations (housing, finance, communications and repairs/maintenance). However, as housing providers' IT and business departments grow in confidence about what they want and expect to achieve, combined with the trend to decouple those same applications (see above), they are expanding their horizons beyond the 'usual suspects' when choosing new software suppliers, and

often using IT suppliers with relatively little housing-sector experience (that can be supplied by the housing provider's own in-house teams) but considerable knowledge and expertise around 'pure play' web-based services.

What tenants want - When developing new tenant-facing products and services, housing providers naturally start with the best intentions but too often they assume or try to second-guess what their tenants actually want or how (and by what means) they will use them. The pitfalls include, for example, confusing or complex functionality, 'in-house' terminology not used by tenants, and even the delivery model (wouldn't a mobile-optimised site be more widely used than a dedicated, landlord-specific app?). The answer, of course, is to assemble a panel of tenants (of varying ages, backgrounds, etc) and involve them in the process.

FORTHCOMING EVENTS

HOUSING TECHNOLOGY 2020

4-5 March 2020 | The Belfry Hotel | Oxford
www.housing-technology.com/events/htc20

HOUSING TECHNOLOGY 2020
CONFERENCE AND EXECUTIVE FORUM

HOUSING TECHNOLOGY AT THE BT TOWER

10 September 2019
Central London
www.housing-technology.com/events/bt19



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Teign Housing moves to Civica Cx for housing & assets

Teign Housing has gone live with Civica Cx as its new web-based housing and asset management platform to drive its digital agenda.

Civica Cx will cover a large number of areas across Teign Housing's operations including contacts and assets, CRM and communications, arrears and voids management, repairs and planned maintenance, servicing and inspections, complaints and feedback, and portals for both contractors and tenants.

Jo Reece, chief executive, Teign Housing, said, "Our investment in the intuitive Civica Cx software provides a robust, digital platform for the delivery of innovative housing services."

Teign Housing's project team reported that their reasons for choosing Civica Cx included its modern 'app style' interface, out-of-the-box implementation, rapid upgrades, a built-in tenant portal and integration with its existing systems

including those from Documotive, Shoretel, Devon Home Choice and Open Accounts. Civica and DtL Creative provided implementation and technical support in all areas of Cx Housing including building and configuration, reporting, interface design and build, data validation, user-acceptance testing, training and go-live support.



For the data migration element of the project, Teign Housing used specialist migration consultant Mark Duffill from Amber Green Consulting due to his in-depth knowledge of Progress-to-SQL database migrations.

Karen Johnson, head of corporate services, Teign Housing, said, "We can now move away from lots of time-

consuming, manual processes and reduce our staff processing time by around 40 per cent. We have also removed the need for spreadsheets because all of our workflows are now in Civica CX, thereby reducing the risk and errors associated with manual processing."

Craig Manley, IT manager and Civica Cx project manager, Teign Housing, said, "After analysing all of our third-party systems, it was clear that they had become disjointed, meaning that our staff had to run many different applications to carry out their daily work, compounded by the fact that more and more spreadsheets were being used to plug the gaps between our systems.

"Civica Cx offered a one-stop solution that could replace many of our third-party systems and gave us CRM capabilities that we didn't have before. The fact that it's built on a modern Microsoft platform was very appealing because our internal IT team is more equipped to support it."

Vivid's insights with Hitachi and Power BI



Vivid Housing has recently enlisted the help of Hitachi Solutions, Microsoft and Richmond Systems to create a proof-of-concept of a real-time, business analytics dashboard.

As a precursor to the project, Vivid realised that it wasn't getting maximum value from its data and identified a service-desk system to use as a test bed for Microsoft Power BI.

Vivid wanted a single view for real-time performance metrics, monthly management information and ad-hoc analysis. As a low-risk and low-cost trial, Vivid decided to use Richmond

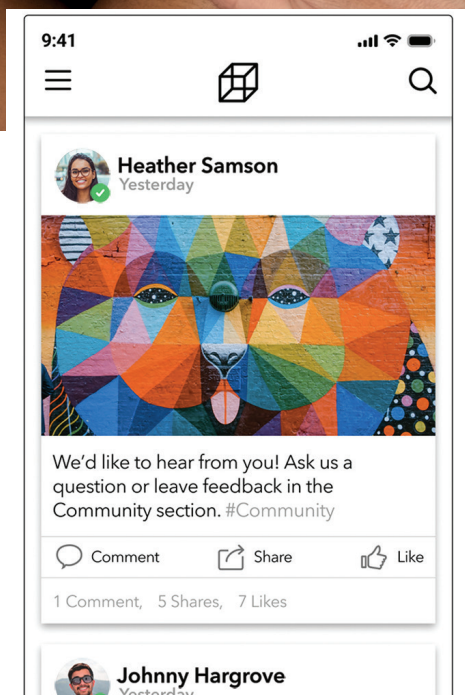
ServiceDesk as a representative sample of Power BI visualisations to showcase the system's capabilities.

Vivid chose Hitachi Solutions' specialist housing team to do the Power BI project. Hitachi's team captured Vivid's data and analytics across multiple systems and created a friendly, self-service dashboard. The interactive dashboards visualised Vivid's KPIs, highlighting performance trends against SLA targets.

Mark Wilson, CIO, Vivid Housing, said, "Hitachi Solutions impressed us with its knowledge of the Microsoft data platform and roadmap as well as its experience and expertise in business intelligence."

A new community engagement app for housing organisations

itica



Engage first, empower second

The importance of building sustainable communities and driving high levels of community engagement was a key theme at the recent Housing Technology event and features heavily in the government's recent paper titled "A new deal for social housing".

A number of recent studies have shown that effective community engagement benefits all parties concerned, but getting communities to engage is difficult.

Traditional social media platforms are often used as the "goto" vehicle for engaging with communities and are still very popular for advertising. However, a growing number of people feel uncomfortable sharing their thoughts on these public platforms, and organisations that use them to connect with communities barely reach 10% of the intended audience with their communications.

Our solution

We've teamed up with the experts at Disciple Media, to bring their community media platform to the housing sector and help organisations meet the challenges of community engagement.

You get your own-branded app with many of the good features you would expect to find in leading social media platforms, but it's private for you and your community members and all content is completely under your control. It's easy to use and extremely quick to deploy, providing a great way to promote meaningful community engagement and collaboration.

All this is rounded off with a wealth of analytics on membership, content, poll results and device usage etc. so that you can measure the effectiveness of your engagement initiatives.

The platform can be used to support any type of community and is in live use supporting pop group fan bases (including the Rolling Stones), sports organisations, politicians, clubs and village communities. Commercial organisations are also using it for their staff as an alternative to other intranet technologies.

itica community insight powered by



Want to have a look?

Please get in touch for a demonstration.

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Start as you mean to go on... A guide to successful supplier relationships

John Doughty, Director, itica

When I joined itica last year, I spent a fair amount of time immersing myself (as you do) in the company's management consultancy portfolio. I was immediately drawn to itica's work in the area of relationship governance and optimisation. I was fascinated by the case studies and stories on this subject and started to reflect on the customer relationships that I had been involved in over the years.

In my previous role with one of the major IT players in the housing sector, I had overall responsibility for customer relationship management. On the whole, my previous company had some excellent relationships with its customers measured by both longevity and the level of ongoing investment in products and services. They also had a relationship management team that extended beyond the account manager and included the allocation of a member of the executive team to each account to act as a sponsor.

However, as in any business, there were always relationships that didn't quite work out in the way that either the customer or supplier had hoped, and my review suggested to me that both customers and suppliers could do a lot more at the outset of these relationships to prevent problems occurring further down the track, and perhaps agree a way of dealing with relationship problems when they do arise.

Successful relationships between customers and suppliers are paramount in driving mutually-beneficial business outcomes for both parties. Unfortunately, not all supplier relationships are 'sweetness and light' and often fail

to match the early promise of the honeymoon period immediately after contract signature.

Most, if not all, housing providers rely heavily on third-parties for business-critical systems, IT infrastructure and services. Some of these relationships will represent a significant proportion of their annual IT spending; getting the best from these key relationships is therefore a vital ingredient in ensuring that business outcomes are delivered. Importantly, we shouldn't forget that there are two sides to every relationship and it needs to work for the supplier too.

itica's experience of helping clients develop and improve supplier relationships shows that simply relying on a contract rarely produces the desired outcomes, so here are some ideas that can be applied as needed to fit the size and scale of your IT organisation and your supplier contracts (these ideas can be applied to both new and existing supplier agreements).

Defining your expectations

IT suppliers segment their customers so why not segment your suppliers? Start by categorising your relationships into, say, 'strategic', 'key', 'critical' and 'important'. Don't assume that all high-revenue contracts are strategic, instead build a simple scoring matrix with additional criteria such as linkage to core business processes or plans, business or financial impact of non-performance, and ease of substitution. A 'strategic supplier' is one that your business could not survive without or is crucial to achieving your business strategy and only applies to a limited number of suppliers. Also, be impartial; don't let a great personal relationship influence your assessment of a supplier's ranking.

The rankings will identify where an enhanced relationship model is needed; this should have a degree of formality

because it requires commitment from both parties. Document what you expect from the relationship: for example, who needs to be involved from executive to operational levels; the sharing of business and account plans; the supplier's capabilities beyond technical expertise; how the teams will work together; how both parties will manage risk; the resolution of relationship issues; and, lastly, regular relationship reviews outside the operational service review structure.

Business alignment

Once the model has been established for strategic or key relationships, the next step is to articulate the outputs and measures that will demonstrate whether performance is improving business efficiency. Alignment to business outcomes means going beyond technical or service performance measures, although these are important and in some instances all that is available or appropriate.

The business measures to add to technical metrics might include: improving satisfaction ratings from internal users and external users of your systems or services; system use or take-up (e.g. increased levels of digital interaction or engagement); financial performance improvement, such as revenue per employee or a reduction in voids or arrears; faster end-of-year processing; shorter call centre resolution times; real-time availability of business-relevant information; and continuous improvement, such as a reduction in costs over the life of the contract or incremental improvements in service levels.

Once these are agreed, contracts or sourcing processes can be structured to suit, to include the commercial and service-level requirements as well as the ability to change the measures as business needs evolve. Potential suppliers will respond better to being measured, and paid, on business outcomes if the revenue triggers are clear and the benefits and

Start as you mean to go on... A guide to successful supplier relationships

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risks shared. These commercial structures need agreement within the business because they could lead to paying more for the benefits delivered or improved service.

Changing your existing IT supplier contracts may not be possible but that shouldn't prevent engaging your top suppliers in a conversation about applying some of the relationship principles and having a greater focus on achieving business outcomes.

Importance of the account management function

Aside from technical capability, a major influence on a supplier's performance is the account manager and their team. 'Account manager' is one of those terms that can mean different things depending on the organisation you are talking to, so it's important to understand what kind of account management service is being offered, paying particular attention to the level of sales focus expected by your account manager. Some key questions to ask include:

- What are the supporting components of the service in terms of internal structures?
- What proportion of time is allocated between relationship building, dealing with issues and selling?
- How many accounts does the individual manage and how complex are they? The number of units owned and managed in the housing sector is still a good guide, overlaid with the extent of the supplier's portfolio that they have implemented.
- Does the account manager have any responsibility for securing new customers and if so, how much time is allocated to that activity?
- What sales target does the individual typically carry, how much of the target is allocated to your account and how is the individual incentivised?
- Importantly, what is the account manager expected to deliver from your account in terms of follow-on sales during the life of the contract?

The trick is to align these measures to your own needs; use the relationship model to define the account manager role and have the final say on who is appointed, and do likewise for critical account team roles. Share the relationship model during

appropriate sourcing projects and ask the supplier to commit to the permanent account team being part of the ITT process and continue all the way through to operational service. The benefits can be initial joint team development, an ability to fix issues, and early performance ownership to those responsible for delivering the 'live' service.

Other questions you might want to ask

In addition to asking for certificates and accreditations, ask to be shown how the supplier applies internal quality controls. Maintaining high performance is a function of an embedded approach to continuous improvement of processes and services. Ask them to share the measures that they apply to themselves with example reports, and to provide evidence of how their internal controls have identified problems and then verified that changes have created and maintained improvement. Remember too that suppliers not only face similar business challenges to their customers but they can also identify opportunities that could lead to mutual benefit.

Acceptance criteria

Defining these follows on from setting the performance measures and metrics, with the additional step of agreeing the trigger points for payments. The trigger points will usually be milestones (end of a project stage or x% complete), governed by a quantitative ('n' users, sites, customers) or qualitative (systems and services operating at specified performance) and making them simple and unambiguous will help foster trust and easy agreement.

The trigger points can also be used to build penalties into the agreement, such as non-achievement of the trigger point by a certain date. In this case, suppliers will want to ensure that the risk is shared if they are dependent on the customer completing activities, and there will also be a need to consider tiered payments for interim or variable achievement of the metrics. Rather like performance-related pay, suppliers will often agree to link a proportion of their revenues to the measures.

Ongoing governance

I mentioned earlier that successful relationships and performance requires commitment from both sides. Once the

contract is in place, many organisations underestimate the effort involved in proactively managing their top suppliers.

The effort required is reduced by doing the work up-front in terms of the relationship model and the metrics, both of which can be used to track performance at regular intervals. There will also be a need to stand back from day-to-day ups and downs and review the status of the overall relationship. Some suppliers call this stewardship, others 'total account management' or governance – whatever it's called, it is the mechanism to review the wider picture and confirm that the relationship remains aligned to its original purpose, that the right people and capabilities are engaged, and an opportunity to modify the model as appropriate.

Engagements start and end with a contract, but it's the bit in the middle that really determines how good the relationship is. In the new world of non-perpetual IT contracts, an upfront investment in relationship governance is even more critical for anyone providing an IT service, so start as you mean to go on.

John Doughty is a director of itica.

Magna Housing revamps IT with Aareon



Magna Housing has chosen a comprehensive housing technology system from Aareon. The new package of software comprises the Aareon QL housing management system, Aareon 1st Touch mobile workforce technology and a new tenant portal.



Magna Housing expects to go live with the first phase of the combined Aareon QL system during the middle of 2019, followed by the customer portal shortly afterwards.

Jez Morris, head of service transformation, Magna Housing, said, "The Aareon software is extremely easy to use and will give us a wealth of information about our business. All of our staff will have access to comprehensive information about each tenant and each property while our customers will be able to do more for themselves online via the new portal."

Aareon's housing & repairs software available through CCS

Aareon UK has been awarded supplier status on the Crown Commercial Service's new data and applications solutions framework (RM3821).

Within the CCS framework, Aareon UK has secured a position for resource planning and management solutions, including financial and commercial (Lot 1A) and environmental and planning, including housing management and housing repairs solutions (Lot 2B).

The CCS has replaced the local authority software applications (RM1059) agreement with RM3821, designed to enable local authorities and housing providers to buy software based on pre-agreed terms and contractual frameworks to reduce procurement timescales and be compliant with EU regulations.

MIS AMS's entry-level HMS for Bristol Charities

Bristol Charities, a provider of social housing in Bristol and South Wales, has implemented MIS AMS's ActiveH Lite, an entry-level housing management system that will help the charity manage 88 units, mostly within almshouses.



Andy Dixon, finance director, Bristol Charities, said, "We were using an accounts system and spreadsheets that were simply becoming cumbersome and no longer tailored to our growth – we were merely 'making do' which isn't ideal.

"ActiveH Lite is primarily a business system, not a finance system, and it's making our lives much easier, while providing all the functionality we need in terms of generating

statements and keeping our remote employees ahead of the curve.

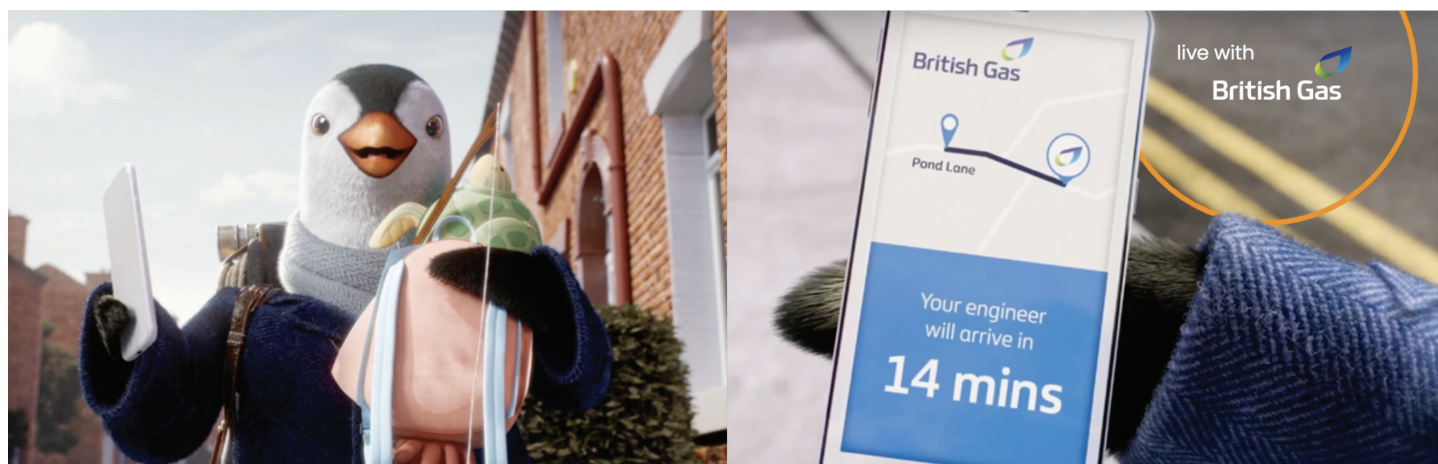
"The remote working is an enormous bonus to the team – giving them the information they need about rents at their fingertips while also being able to capture and update important information about tenants on the spot."

Chris McLaughlin, managing director, MIS AMS, said, "Many smaller housing providers think that they can't afford a system with the functionality they'd like from an entry-level HMS system, but they'd be wrong.

"ActiveH Lite has everything they need. From rent and arrears, to a basic CRM system combined with remote access, it's all there, and is totally scalable as the organisation grows."

Automated customer notifications

with Uber-style real-time operative tracking, super accurate traffic-aware ETAs, & two-way communications.



Improve first-time access for repairs operatives and housing officers

Failed appointments
reduced by 20%

Significant reduction in inbound calls

ETA query calls
reduced by 30%

Superior customer experience

Real-time progress tracking delivered to customers' phones

Our clients:



Get in touch.

Paul Swannell
Sales Director

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paul.swannell@localz.com

Castleton's £1.3m deal with Connect Housing

Connect Housing has chosen Castleton Technology as its partner in a £1.3 million, five-year contract for the implementation of an organisation-wide suite of ERP-based housing software. The project is already underway and due to be completed by April 2020.



Dean Dickinson, Chief Executive, Castleton Technology, & Helen Lennon, CEO, Connect Housing

Following a tendering and procurement process facilitated by Alysium Consulting, Castleton will deliver its integrated housing platform encompassing CRM, housing, financials, repairs, contractor portal, purchase-to-pay, electronic document management, business intelligence reporting, data services and asset management solutions.

Connect Housing is also further enhancing its digital capabilities by augmenting its new housing platform with Castleton's Agile solution for workforce automation alongside Castleton.Digital and its newly-acquired Communications Manager for instant self-service interaction through portals, tenant apps and SMS communications. Castleton's Maintain solution will support Connect's continued investment in good housing through optimised asset management.

All of the Castleton software and digital modules will be fully integrated in order to allow Connect to operate as a 'joined

up' organisation, enabling events occurring in one area of the business to be fully visible in real-time to other areas of the business.

Helen Lennon, CEO, Connect Housing, said, "Having gone through an extensive competitive-dialogue procurement process, we are delighted to appoint Castleton as our housing technology partner for the next five years and beyond. Castleton engaged with us on a comprehensive basis throughout the process and have invested a lot of time and effort into understanding our organisational needs and growth strategy."

Dean Dickinson, CEO, Castleton Technology, said, "Working in partnership with Castleton, Connect Housing will embark on a major channel shift for the benefit of both its staff and tenants. Employees will be able to access information anytime, anywhere, and Connect tenants will have the ability to communicate with their landlord at any time in a number of ways and on any device."

Castleton Technology buys Deeplake Digital

Castleton Technology has bought Deeplake Digital, developer of the Communications Manager software, for an undisclosed sum.

Reported to be complementary to Castleton's existing suite of digital engagement solutions, the acquisition of Deeplake Digital and its Communications Manager software supports the provision of two-way SMS communication between housing providers and their tenants, as well as extending to tenant portals, smartphone apps, email and social media.

Communications Manager is based on the same Microsoft .Net technology as the rest of Castleton's technology platform.

Dean Dickinson, chief executive, Castleton Technology, said, "This acquisition will let us

capitalise on the opportunities arising from social housing's shift towards digitalisation, building on the capabilities that Castleton has already developed.

"Deeplake Digital adds scale, customers, skills, market knowledge and specific digital communication intellectual property, and it has a great reputation for delivering quality products and services, as demonstrated by its high customer-retention levels over the past ten years."

Four staff from Deeplake Digital will join the Castleton team to ensure business and technical continuity for existing Deeplake customers.

Brighter Thinking for Housing

Great user experience

Simple, fresh interface designed for any device and any browser, giving you access to information wherever, whenever.

Truly open integration

Open connections to other systems to streamline how you work and transform how you deliver.

Multi-channel engagement

Built-in CRM and self-service makes every interaction faster and better, freeing you up to get proactive.

Powerful insight

Aggregate, visualise and interrogate data with ease so you can make the right decision every time.

FLEXIBLE. SCALABLE. INNOVATIVE.

An open technology for housing

The housing sector is calling out for a fresh approach to managing their customers, processes and people. That's why we've drawn a new blueprint for the technology that's shaping the future.



The deer park of integration – Controlling your rutting stags

Tony Smith, ThatHousingITguy (blog) & Chief Consultant, Acutance

In recent projects, I have increasingly found that it's all about revolutionising the self-service experience for residents. The majority of tenants, even elderly ones, are prepared to self-serve (or their offspring will quite often tackle it for them), and done well, it can be more convenient, faster and available 24/7 for all the bread-and-butter interactions.

It's quite common for me to help housing providers as a 'critical friend' after they've chosen a solution, and that job might be to hold back the rutting supplier stags. Often there can be as much testosterone as the average National Trust deer park when different solutions need to be integrated effectively. Self-service is one such area, where efficient, reliable integration makes or breaks the customer experience.

The starting point with my clients is determining what they think good self-service looks like. This always generates some great ideas, from the staff and management I work with, based on real-world expectations.

In 2019, we should be able to provide a very expansive environment for self-serving customers and the outline below reflects what and how a number of my clients have achieved relatively quickly and painlessly, using a structured approach and the right partners:

- **Quick and easy** – Easy navigation for residents is essential so they can quickly carry out all of the most common tasks, such as checking balances, querying charges, obtaining statements, making frictionless payments, and setting up direct debits.

- **Channel shift** – Moving most of the booking of repairs, appointments setting and progress checking online (and away from the contact centre) is a key area for effective channel shift. If you think about the ease of ordering on, say, Amazon, we meet modern expectations; it's one of the most obvious 'low-hanging fruit' transaction areas.
- **Complaints & feedback** – Most leading online service providers (retail, travel, banking and so on) make it easy for disputes to be resolved or the status of different activities to be checked online; your tenants would appreciate being able to do the same things in areas such as complaints, ASB and feedback.
- **Electronic document management** – These days, when we deal with our banks and insurers, we expect to access all our documents online, mostly through self-service (including uploading supporting documentation). All housing-related processes relying on up/downloading electronic documentation are ripe for consideration.

Now that we have a good idea of what's desirable, we next need to have the individual systems, applications and modules 'under the bonnet' to actually integrate to.

However, a word of caution at this point. Many of us have back-office systems that were never fully implemented or integrated (it's a little endemic in the housing sector, isn't it?). Those legacy decisions can start to cause us some integration challenges with our 'perfect' self-service plans. Here's some examples I've actually seen during the past year or so:

- Planned & cyclical modules never bought or implemented or simply not in use. This means that any views of repairs may only be reactive ones.
- Case management processes being completed on spreadsheets; clearly, these can't be easily brought together or fed incidents from a sexy portal.

- No document management system or Sharepoint storage connected to the back-office systems, and exacerbated by randomly-named documents stored on network drives.

Richly functional self-service portals depend on having well-organised infrastructures underneath them. Where smooth integration is patchy, one solution is to add a data or transformation layer, such as Dynamics CRM, Firmstep or a data warehouse, to present a single source of unified data to the self-service portal. Interfacing options can largely depend on how modern your solutions are as well as your suppliers' attitudes to open systems. In short, consider your integration options as early as possible.

There are two important questions for any supplier or project team proposing a self-service portal:

1. How will you integrate with all of our back-office systems to ensure that we will have an efficient, fast and go-to experience that our tenants will actively want to use?
2. Where have you done this successfully before, in an organisation with a similar mix of systems to us, and can we please see it?

Many suppliers' offerings at sale are integrated using unicorns or fairy dust. It's often my job during the initial procurement to sift the facts from the 'smoke and mirrors' and identify the risks of delivery delays or cost variances, both subjects that suppliers rarely mention.

- Where you have a number of suppliers involved (and possibly a digital partner, too), our advice is to contract just one of them to manage all of the relationships.
- Suppliers often, at best, play too much email ping-pong and, at worst, slug it out like rutting stags. Fence in the supplier stags from the very start, and contractually agree the scope,

The deer park of integration – Controlling your rutting stags

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- functionality and all integration points.
- Ensure clarifications are fully explored and costed correctly because change control later could be expensive.
- Communicate with your existing suppliers and determine any add-on costs for web-services, expertise or interface kits (in our experience, some suppliers may charge you as much as it costs for their own self-service portal, just to integrate it). These add-on costs should be included in the contract and schedule of deliverables.
- Once the boots hit the ground, make integration a priority and an early project stage; a lack of progress and planning within the first weeks will create problems later.
- Where issues do occur, it is particularly tempting for some suppliers to persuade you to consider 'de-scoping', resulting in new inefficient manual processes to the detriment of your overall self-service offering.
- An 'all supplier lock-in' is therefore a proven and logical way to tackle these challenges and resolve any issues.
- Don't think about self-service in isolation; it needs to dovetail with your many existing (and a few future) systems in order to offer the very best to your customers.
- Invest in, improve or implement some elements of your back-office systems that may be needed as a precursor to pushing on with self-service.
- Probe your self-service partner or supplier to verify that all integration bases are covered and ascertain how

your existing suppliers will support your integration options.

- Tie your suppliers in contractually to reduce your risk.
- Prioritise integration over many of the aesthetic qualities of self-service, getting the integration aspects moving fast and early.
- And finally, if needed, engage a critical friend to help.

Tony Smith blogs as ThatHousingITguy and is chief consultant at Acutance.



Housing Insight signs Hafod Care

Hafod Care has signed a five-year contract with Housing Insight for its PanConnect supported housing software. The system is scheduled to go live in April 2019 across all of Hafod's supported housing teams.

PanConnect is already being used as a fully-mobile, floating support and care platform by other Welsh housing and care providers including Llamau, Pobl Group and United Welsh.

Housing Insights launches communication hub

Housing Insight's new Communication Hub, developed by the team behind Communication Manager (CMGR), has been recently launched as a new addition to the company's main PanConnect software.

As well as providing two-way SMS, Communication Hub enables any housing or care provider to integrate

with all social media platforms including Facebook, Messenger and WhatsApp for multi-channel engagement.

Nas Hayat, director, Housing Insight, said, "It was always our intention to launch a communications platform for our PanConnect customers. Our internal team has grown to include many of the original creators of the CMGR product and we have used their knowledge to develop our enhanced version; we didn't want it to be 'like for like', we wanted to give our PanConnect customers more."



Unlocking value through data insights

Richard Harrison, Head of Service Products, Orchard, and Jefferson Lynch, Client Development Director, Red Olive

What keeps your CEO awake at night – perhaps customer behaviour, tenant engagement, reporting, regulatory governance, viability compliance, keeping in line with KPI statistics, fraud detection and GDPR, to name just a few?

Orchard Data Value services

We look for patterns and analyse performance and behaviour to deliver tangible, actionable results fast, so you can use them to improve your business performance. We can show you how to get the most out of the data you already have and make sense of the many different sources available to your organisation, covering data collection, data qualification, understanding, storage and analytics.

Data value diminishes over time

Data value is time-limited; the amount of insight and value that can be realised from your data will diminish over time.

It's not all about historical trend analysis that can be mapped; the true value in data is what can be forecast, modelled or predicted. Historical data has its place in providing analysis and trends but the true value may well have already been lost.

Fixing your challenges

Our long-standing and deep knowledge of the challenges facing housing providers, together with our experience of applying analytics and data to tackle diverse business challenges is a perfect solution for your organisation. Orchard Data Value can help you with your biggest challenges:

- Accountability to the housing regulator;
- Improving tenants' lives;
- Better managing your housing stock.

Accountability to the housing regulator

Are you struggling to evidence your

organisation's level of viability and governance, concerned about an upcoming in-depth assessment or do you want to stress test your business plans and predict their effects?

Orchard can draw together your trusted data sources and provide a shared, interactive dashboard of your key metrics including operating margin, gearing, new housing supply and headline cost per unit. Machine learning algorithms create multiple potential 'what if?' scenarios, quickly showing predicted effects, historic performance, Housemark benchmarks and forecast results, thereby transforming your boardroom dialogues.

Regulators typically want to know the following:

1. How does an organisation arrive at its decisions, and does it have good governance? These will be particularly important and scrutinised in a post-Grenfell world.
1. Will an organisation survive if the unexpected happens; i.e. is it durable and is it viable?
3. Is an organisation providing good service to its customers, offering good quality and delivering good value for money?

KPIs are all about the contributory factors

How can you best prepare to improve a KPI, and what do you need to know?

1. Understand which things are contributing most to the score – for example, if you capture a satisfaction score every time you have had any contact with a customer, then the part of your business that has the greatest



number of contacts with your customers will contribute the biggest proportion to the customer satisfaction KPI, so that's an obvious consideration.

2. Compare scores across several business areas that each contribute to the overall score – is one getting particularly low scores, why might that be, and is it something that you could address relatively easily to make a significant increase to the overall score?
3. What is the relationship between the impact you can have and the cost to actually achieve that improvement? The Orchard Data Value team can help you calculate this.

Improving customer satisfaction

It's important to think about the timeline of your business; if you want to improve customer satisfaction within the next six months, then a major new-building programme probably isn't the answer, but perhaps allocating more staff to get more repairs dealt with faster might be.

What does the regulator need to know?

The measures on this dashboard are taken from the regulator's governance and viability model, put together to help senior leaders in an organisation like yours to gain confidence that:

- They have an accurate picture of their recent performance;

Unlocking value through data insights

Continued from previous page

- They know where they stand against an established benchmark such as Housemark;
- They aren't getting close to 'danger areas';
- Their future plans are bringing about the type of performance they want

Behind the scenes, we take your data and create a set of models, so we can also provide you with 'what if?' modelling linked with your dashboard through a set of sliders. This lets you see the impact on your plans if, say, the cost of house building rises by 15 per cent or rental income starts to fall. Can you imagine how visibility like that could transform your board meetings?

Improving tenants' lives

To allow you to have a deeper understanding of your tenants, you need to join up a lot of data sources; a big part of our skill is often therefore in joining up lots of messy data to work out the answers to key questions.

One of the techniques we then use to make sense of the results is to create 'personas' which are like stereotypes of people who behave in certain ways, and we use those to help us communicate

what we mean to business people. The personas' names describe how the groups behave.

What might persona-based insights mean for you? It could help you to predict which tenants are likely to fall into debt, allowing you to adjust communications and support to help the individuals plan their finances. Orchard Income Analytics software is transforming how income teams are working.

David Curran, income manager, First Ark, said, "Our welfare reform and universal credit teams discuss rent accounts during every customer visit. We've always been hampered by the lack of a suitable mobile solution. Orchard Income Analytics offers us the perfect solution, giving our officers the ability to display a rent account on their iPad within the tenant's home. It provides a visual depiction of their rent account and the ability to add a note summarising their discussion, all of which will feedback direct into Orchard Housing. Being able to use the system in this way will give us significant efficiency savings."

Better managing housing stock

Many senior executives are worried about high levels of voids that are

costing the organisation money. Short-notice departures from tenants lead to maintenance-capacity planning issues, so ideally wouldn't you like to be able to predict voids and 'at risk' properties 18 months in advance?

Orchard uses sophisticated machine-learning algorithms to find the strongest predictors of voids, helping you decide on preventative action. This insight helps organisations to plan property refits and deploy maintenance teams more efficiently. Our methods allow you to plot each property or your whole estate onto an interactive map, highlighting current voids and properties at risk with the ability to drill down to the detail of the required repairs. So don't suffer from sleepless nights; Orchard can help you to unlock the value of the data in your organisation to make sense of your situation and provide the evidence you need to make key business decisions.

Richard Harrison is head of service products at Orchard, and Jefferson Lynch is the client development director at Red Olive.



South Lakes' on-going gains from Mobysoft's RentSense

South Lakes Housing has reported on how it has been using Mobysoft's RentSense arrears management software since 2012 and almost halved its arrears.

Simon Hughes, head of income, South Lakes Housing, said, "When we started using RentSense in 2012, we had generic housing officers and they were having to check all 3,000 accounts, which was wasting a lot of time, and with the transition to four-weekly housing benefit we only wanted to see and action cases that needed our attention. After the deployment of RentSense, our officers were looking at just 25 per cent of their patches, so straight away we could see the benefits."

Over time, RentSense has refined its performance by presenting fewer and fewer cases; because South Lakes' officers have focused on just the cases presented, they have helped to improve performance, lower arrears and reduce the number of cases they need to manage.

Hughes said, "We have maintained upper-quartile performance throughout using RentSense. Of our 3,000 tenancies over the last 9-10 months, the officers have only had around 120 cases per week to look at.

"During the past year, we have tried to create something like RentSense in our new housing management system, but we just couldn't do so. It was taking up valuable time, money and development resources, and we could see that we were no closer to developing anything like RentSense. We finally stopped any further development because we didn't want to waste any more time or money.

"RentSense is saving us the equivalent of two or three full-time members of staff, and since 2016 our arrears have fallen from 2.08 per cent to 1.35 percent."

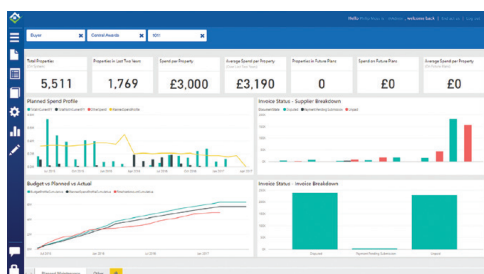


A new approach to repairs – Data aggregation and mapping

Phil Moss, CTO, Procurement for Housing

I once worked with a housing provider that had a mystery problem. The number of tenant complaints it received suddenly shot up. Every week more people grumbled about their home. Some reported wet walls and window condensation, others talked about damaged furniture and a few tenants said they were having breathing difficulties.

Operatives were dispatched, repairs made, damp-proofing done, windows fixed and walls re-painted. But the wave of complaints kept coming. After many months of tenant dissatisfaction soaring and its repairs spending growing, asset managers discovered the cause. A design defect in over 100 semi-detached houses meant that penetrating damp was affecting the smallest bedroom, where a hidden gutter had begun to leak. Each home was built at the same time, to the same design, and the gutters had all begun to fail within a few months of each other.



This problem could have been avoided through better data analysis and visualisation. Every repair was logged in the housing provider's asset management system. But what if repair requests, and tenant complaints, were automatically fused with GPS data so that asset managers could map them out? This



would have indicated that the influx of new jobs was all within a one mile radius of each other.

If complaint and repairs data had been combined with property type and age records then asset managers would have also seen that it was houses constructed at a similar time and to a similar specification that were affected. Spotting these trends sooner and putting a planned programme of rectification in place could have prevented much of the damage.

Combining asset management data with new streams of information isn't a new idea. The technology that enables landlords to join these data dots has been available for a number of years. But uptake in the sector is slow because, in reality, blending data sets in the social housing sector isn't a straightforward process.

With only the minority of housing providers exploiting repairs information to its full potential, I think it's time for the sector to reappraise its approach and overcome the barriers that are holding them back. Here are five reasons why.

Tenant perceptions can help to predict product age

Traditionally, planned maintenance is organised around component lifespans. There is a standard view of the predicted lifecycle of an item and as works are undertaken, the clock is re-set. This relatively rudimentary way of understanding stock condition can be supplemented through housing surveys, but for large landlords, surveying each property isn't always possible.

So, rather than purely using a mechanical lifespan calculation to determine when to invest, some landlords are now linking this data with results from tenant satisfaction surveys. Residents' views about the appearance and condition of their properties could flag up patterns around certain components. For example, a batch of boilers that were expected to last 15 years but which many tenants think are performing poorly could indicate a shorter life span.



Avoid tenant dissatisfaction & emergency repairs

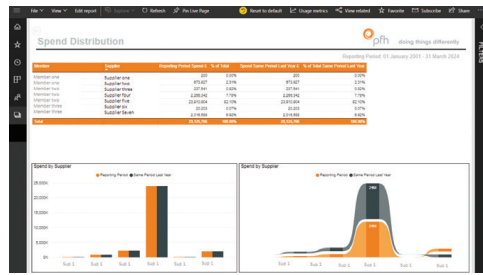
Linking repairs trends to installation dates could also identify issues with a particular model. If 50 electric showers, all the same model and installed at a similar time, are breaking down within a few months of each other, this might enable the landlord to claim against the manufacturer. It could also indicate that asset managers need to change their specification for electric showers or introduce a replacement programme to avoid tenants' complaints and responsive repairs costs.

Reduce empty homes

Joining up voids records, property-type information and mapping data could support housing providers to cut the number of empty homes. For example, some streets might have unusually high levels of unoccupied houses. Linking these figures with data on the specification of a house and its repairs history could help asset teams understand why there is a cluster of voids. The answer might be the tiny third bedroom, making it unsuitable for families. It could be the fact that it's at the

A new approach to repairs – Data aggregation and mapping

Continued from previous page



top of a hill, far from local amenities but also exposed to prevailing weather which is shortening the lifespan of the roof and encouraging leaks. Or perhaps the reason for the unpopularity of a row of properties, each built to the same design, is that they all have defective radiators and poor insulation, meaning that they never stay warm.

This intelligence can help asset managers tackle ongoing voids. Data patterns might signify that a layout reconfiguration could increase lettings. Another solution might be to improve the insulation or replace the heating system on all houses in the street, or perhaps the best idea is to sell off certain properties and cut all losses.

Cut refurbishment costs

As stock gets sold and records revised, it can be easy to miss properties by simply looking at an address list. One street might need kitchen re-fits, but visually mapping the data could draw your attention to a nearby cul-de-sac which has a single property on it, still owned by the housing provider. Rather than coming back to this house the following year, it might be more cost effective to include it in the flow of current works, keeping the tenant happy and the contractor's price down.

Understand property value

Fusing asset management numbers with public data sources is another way housing providers can better understand the bigger picture. For example, land-registry information about recent property prices can help asset teams to establish their portfolio valuation. Adding in tenant perception data can also provide another perspective. Residents' opinions about their homes and neighbourhoods might help asset teams to form a more holistic view about the value of certain properties.

One of the key elements to achieving this holistic, 360-degree view is having enough accurate, granular asset management data in the first place. I regularly work with social landlords to drill down into their low-level transactional records, grouping this into specific programmes of work and then putting it into the context of national data sets using, for example, our spending control software, Valueworks.

The housing sector is notorious for keeping data in silos. This extends to contractors where records are collected in aggregate across spreadsheets or filed away in paper form. But the tide is changing. Housing providers can see the valuable intuition that linking pots of operational data could offer; the key is overcoming barriers around resource and expertise, information blind spots, data collection and quality.

Phil Moss is the chief technology officer at Procurement for Housing



Housing procurement and Brexit

Chris Cliffe, Director, CJC Procurement

At the time of writing (early March 2019), Britain will exit the EU at 23:00 on Friday 29 March. You might also be aware that the Public Procurement Regulations 2015, which are the UK's transposition of European procurement rules into domestic law, apply to the social housing sector. A no-deal Brexit is currently still a very real possibility and the government is stepping up no-deal preparations.

The government's Cabinet Office recently published guidance on public-sector procurement after a no-deal Brexit. The guidance states that if the UK leaves the EU without a deal, then the public

procurement regulations will remain "broadly" unchanged.

The government will need to amend the current legislation to ensure that it remains "operable and functional on exit". The procedures will remain exactly the same, with the key difference being that there will be a new UK e-notification service rather than an EU publication service. In layman's terms, the term OJEU (Official Journal of the European Union) will itself disappear but the concept of OJEU will remain and it will become something like (I'm guessing here) 'UKENS' (UK e-Notification Service).

Housing providers will still be required to advertise. Those that use e-procurement should check with their procurement software providers that they intend to integrate their software to the new e-notification service. Software providers such as BiP, Proactis and several others

have already done so, according to the Cabinet Office, but not all of them have.

Procurements under way before Brexit will need to continue under existing legislation, but the award notices will need to be via the UK e-notification service, not OJEU. The amended regulations will need to be followed from the point of exit.

Housing sector suppliers will need to also make sure that they are aware of this so that they can update their searches for opportunities. Additional information has been published by the EU which confirms that suppliers wishing to tender for EU work will still be able to access OJEU and TED as they can at the moment, although this reassurance is limited to access to opportunities and doesn't cover any aspects of tariffs or commercial implications.

Chris Cliffe FCIPS MioD is a director of CJC Procurement.



Outsourcing and shared services

James Shand, Managing Director, TriPartum

In recent years, shared services and outsourced services have tended to morph into a single area as housing providers seek to optimise budgets. The original objective was to collaborate within the sector, to effectively share the provision of a service by one part of an organisation or group, but this only took into account the best practices of the interested parties, rather than necessarily the best practices across all sectors for the services involved.

A simple example within housing is the delivery of leaseholder service charges. They are something that all housing providers need to comply with, as part of a regulated framework for the type of information to be provided and the timescales. However, despite this being a relatively simple obligation, the back-office processes needed to capture and deliver the data can be complex, particularly they usually need to draw data from many different sources. And once the data has been verified, the processes to communicate that information to tenants generates a whole new set of challenges across various stakeholders within the housing provider.

This was highlighted in a presentation from Notting Hill Genesis at the National Leasehold Group annual conference last year, where service charges involved 40 people to calculate, process and deliver information to tenants. In effect, this is the same type of information communication (other than tenant- and property-specific data) that all other housing providers have to do, yet it's not commonly considered today as a shared service due to the insight required.

The use of shared services has a number of benefits. The number-one benefit is financial – the bottom-line benefit comes from changes in processes, value from consolidating services, improving customer experience, addressing digital transformation with multi-channel delivery, reducing debt recovery, and savings in materials and postage.

Secondly, it provides better audit and compliance control by using a centralised system which can trace work end-to-end and provide reporting from receipt of data through to delivery to the mail carrier. The opportunity also exists to build in a number of data-validation steps to act as a control mechanism which can help mitigate human errors arising from spreadsheets.

Shared services for IT shouldn't necessarily have any impact with the IT supplier if the decision to move in this direction is a strategic one. Typically, the IT supplier is known to the parties entering into the shared-service agreement, which might equally be seen as an outsourcing arrangement by multiple parties. In today's digital world, shared IT services are more likely to be cloud-based so any issues around technology platforms are reduced.

Bringing two or more housing providers together in order to take advantage of shared services can be a challenge because, among other things, the consolidation has the potential for job losses. This is where shared managed services can have a strong advantage, in that the core activity, such as calculating service charges and their allocation to properties, remains with the in-house skill set, while process improvements and delivery to the customer is undertaken by experts with a wider knowledge of today's digital communication technologies.

Monitoring shared services is simply agreeing the KPIs and SLAs from the outset, just as you would for any commercial arrangement. There needs

to be a formal governance structure supported by all the stakeholders and a commercial agreement in the form of a framework with the vendor who needs to deliver against KPIs and SLAs. The housing providers would continue to have responsibilities for certain upstream activities related to the accuracy and delivery of data along with downstream testing.

Longer-term shared services could be complicated, especially if one organisation is developing faster than the others, resulting in challenges regarding who is funding improvements. In the world of shared managed services, it is for the vendor to ensure that it retains its position as the 'centre of excellence' across technologies as well as the business interests of the housing providers.

There is still an opportunity to optimise costs by utilising shared services but having shared managed services is less disruptive to the housing association and can deliver a much more fulfilling experience to the customer by drawing on the wider knowledge, insight and skills available from a commercial organisation.

James Shand is the managing director of TriPartum.



Easier asset management and compliance

Ryan Dempsey, CEO, The Compliance Workbook

How do we manage risk in social housing, is it always seen in its entirety, and is it visible to everyone?

The problem we have with risk is that it can be subjective; individual perception means that in some cases the mindset of specific departments creates a level of risk that is hidden from the executive team or board and sometimes even the management level below that. It's only when we are faced with an issue or a disrepair claim that warrants the involvement of those mentioned above that we ask why has this issue emerged, why were there no visible warning signs, and is anything like this likely to happen again?

The truth is we can't always see the warning signs before things happen, or can we?

At Orchard's customer conference in Gateshead earlier this year, they talked about predicting voids using machine learning. The technology is there; we just need the confidence to embrace it rather than maintaining a 'status quo' mentality. We can apply similar logic to compliance and repair data, and much more for that

matter. Why stop at predicting a vacant property when you could have the ability to predict unsafe situations and issues that could have a lasting negative impact on people's lives?

How? It's all there, within the data you hold. So, what are you doing with it? I mean, right now, where is your data? I don't mean the next inspection dates to adhere to a phantom decency standard, I mean the mass of data you hold. The answer most people say is on a spreadsheet, in a house file or locked in a PDF document somewhere.

There are a number of companies in the housing sector who are scurrying to develop something that will provide you with a centralised database of data that you can run simple queries on to generate insights into what has happened, what is happening and, more importantly, when. This is the first step, but it's not truly innovating in the sector. Innovation is about positively disrupting the mindset of why, and how we do what we do. It is creating a product to fix an issue, not marketing a problem that a particular solution can potentially fix.

The issue we all face is the backlog; the data we have but can't access. Housing providers and local authorities throughout

the country have started to implement our process, which goes beyond data extraction. Software that can comprehend the underlying meaning of the data produces high quality, reliable information relating to the physical entity it represents. Unlocking this information then enables not only validated calculations to be performed but also intelligent analytics which significantly improve the visibility of your assets' performance with regards to compliance.

As compliance is at the top of everyone's agenda at the moment and the market sectors in which specific compliance disciplines apply are changing rapidly, we need to ensure that the processes around information management and use are in line with the waves being created following Grenfell.

As organisations responsible for the safety of hundreds of thousands of tenants, we need to continue to move forward with technology and processes to ensure we spot issues and deal with them proactively. The days of reactive responses to risk and incidents are numbered, and as such, it is important to step outside the box and to think differently.

Ryan Dempsey is the CEO of The Compliance Workbook.

Allpay gains CCS payments accreditation

Allpay has been awarded a place on the Crown Commercial Service's (CCS) payment solutions framework (RM3828).

Steve Hope, account manager, Allpay, said, "As a supplier on the CCS payment solutions framework, Allpay can provide prepaid payment cards via 'Lot 2', which allows organisations to disperse funds to those in need, in a safe, secure and financially inclusive way.

"For tenants, our prepaid cards carry the Mastercard logo and look like a normal debit

card, so there's no stigma attached to using them. And for housing providers and local councils, the prepaid cards offer a practical and efficient alternative to disbursing cheques and vouchers.

"Our prepaid cards ensure goods and services can be bought at the point of sale, online or over the telephone, offering a prepaid solution

for those in need, regardless of their financial situation because potential users don't need a bank account or credit check. All transactions are monitored to provide an audit trail, there's no credit or overdraft facility and use can be limited to exclude certain merchant categories such as gambling and casinos."



The role of IT in mergers and partnerships

Claire Lea, Senior Consultant, Sovereign Business Integration Group

Mergers and partnerships in social housing have been gathering pace as a growing number of housing providers look for M&A benefits such as efficiency savings and economies of scale, making housing more affordable, and creating opportunities to build more new homes. Following the success of the mergers and partnerships presentation at the Housing Technology 2019 conference earlier this month, presenter, Claire Lea, a senior consultant at Sovereign Business Integration Group, shares her experience of the role of IT in this process and how it is often forgotten.

Common activities in a merger or partnership

When an organisation has announced a merger with a fellow organisation, there are the initial activities such as press releases, industry interest, new branding, customer information packs, relaunching joint objectives and the development of mission statements and objectives. Then follows the HR activity covering new or amended contracts, office location decisions, policy and process adoption, and perhaps a full restructure.

After this, the work begins and this is often when an organisation will start to see the IT integration problems begin to pour in. How do you report an IT issue (now that the 'old' team doesn't exist)? How do you access details of a tenant, building or service that isn't on 'your' system? Why doesn't the mobile app work for everyone?

Organisation 'one' uses online forms and tasks for workflow but the systems of organisation 'two' don't support that. All common scenarios, especially within the public and housing sectors. The problem? The IT in the merger hasn't been mapped out or planned regarding how the two organisations will blend their IT. But why?

Integrating the IT

There have been over 170 mergers in the housing sector during the past five years, with 42 mergers in 2018 alone. Analysis of the housing sectors and informal discussions both point at reduced funding and a need to become a more streamlined, efficient and effective organisation as being the main drivers for merger activities.

The desire to take advantage of new technology and software capabilities is a contributory factor and yet more often than not, they have not involved the two organisations' respective IT teams (at either executive or operational levels) or developed technology strategies at the early stages of the overall process. This has left the newly-merged organisation trying to implement new systems, software and ways of working alongside the more high-profile work areas associated with a merger (new names, contracts, logos, office location, board members and so on, as mentioned earlier).

We all recognise that mergers are neither easy nor straightforward but considering the role of technology within the merger at the earliest stages can prevent additional stress and discomfort for all involved.

Start at the end and work backwards

While recommending that any merging housing providers involve their respective IT departments from the beginning, the starting point is actually at the end; defining what you want the blended IT infrastructure to look like. At the strategic decision-making level, be clear about what the end goal is for the newly-merged organisation.

For example:

- Do you want one system and process for all staff or keep separate systems for particular elements of the work?
- If either or both of parties in the merger have a digital transformation project in progress or planned, can these be combined or do you need to start again?
- What about the customer journey – do either or both of the involved organisations use a web portal or have online self-service facilities? If so, will this be extended to all tenants of the new organisation, and would that fit in with the overall strategy?

Merger preparation programme

Rather than implementing a recovery programme to try and get back on track after falling foul of the aforementioned scenarios, consider using Sovereign's tried-and-test five-step preparation programme instead:

1. **Communicate** – Have strategic discussions around technology and how it can help the organisation in achieving its new goals. For example, what does the three, five and 10 year plan look like?
2. **Communicate again!** – Understand the requirements at both a strategic and operational level. For example, the board and senior executives may want to provide 80 per cent of the newly-formed organisation's services online, which means there will be a requirement for mobile working, with online forms feeding back into the main back-office systems; the end goal is the same but there are many different ways of getting there.
3. **Identify what you have** – Look at all of the systems and software already in use. Is the main HMS/ERP platform the same for each organisation, and if not, are they compatible or can you integrate (or migrate) from one to the other?
4. **Identify what you are missing** – Analyse what you have versus what you want, and remember to compare this to the overall strategy to ensure that you stay on the same path.

The Role of IT in mergers and partnerships

Continued from previous page

5. Get a plan in place – Plan how you are going to get from where you are to where you want to be. This sounds obvious and it is, but it is so often forgotten, with the result that different elements each go off on their own journeys. Break it down into manageable tasks. For example, you know you want to use System A as the main HMS; what do you need to do to get both organisations there – data cleansing and migration, adjustment of codes to ensure compatibility, redirecting interfaces?

Making the transition seamless

It's not just about the technical configuration of systems, it's also about the conversation between those implementing the IT and those using it. Make sure you make IT part of your merger or partnership conversations early on; doing this will help your transition to be as seamless as possible.

We know you want your employees to be working well from day one and for your customers to only see the benefits of the

merger; making sure IT is part of your plan will help you achieve that.

Claire Lea is a senior consultant at Sovereign Business Integration Group.



CUSTOMER MANAGEMENT

Prodo's guide to channel shift

Digital marketing agency Prodo has just published 'Shift! How to Make Channel Shift Happen in Housing', specifically around how social housing providers should approach channel shift and digital transformation.



Prodo surveyed hundreds of housing contacts in various roles and carried out interviews with senior housing professionals involved with channel-shift projects. The result is a comprehensive view of the challenges involved in encouraging both customers and stakeholders to embrace digital channels and a host of practical advice that can be applied to transformation projects at all stages.

Pippa Adams, CEO, Prodo, said, "Today, consumers are used to receiving fast, convenient service online, regardless of

the organisation they're dealing with. This means that housing providers have a lot to live up to as they adopt new channels of communication. Effective channel-shift implementations should make access to common, repeatable services for tenants easier, quicker and less stressful to use, and allow the organisations to spend more time helping customers with more complex needs."

Rob Walker, head of product, Prodo, said, "The social housing sector is very open and collaborative, so people are willing to talk about and share best practices. In Shift!, we wanted to capture that and add our own contributions. While there are, of course, different approaches to achieving channel shift, we've seen projects fail when certain key steps are missed. Through Shift!, we've provided a framework that has been tried, tested and developed by Prodo across many years and many projects that organisations of any size can follow."

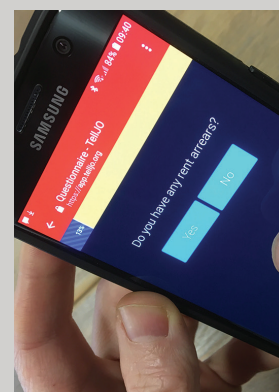
Vivid trials new app to support vulnerable tenants

Vivid Housing is the first housing provider to pilot an app from TellJo that will provide early intervention to support its tenants and prevent them from getting into crisis situations.

The TellJo app enables vulnerable tenants to assess their own support needs after completing a self-assessment and signposts them direct to relevant agencies to access the right support. This will also give Vivid the opportunity to start engaging with the tenant and offer its own bespoke support services, including wellbeing, employment and training, money and benefits advice, digital

inclusion and homelessness prevention.

Derek Streek, head of neighbourhoods, Vivid, said, "We're always exploring new ways to identify, engage and support the wellbeing of our tenants. We hope this new app will allow us to deliver a more tailored and practical support service for some of our harder-to-reach customers with support needs."



Halton Housing trials Informatis AI & energy project

Halton Housing is working with AI and smart-energy start-up Informatis to trial a new method of ensuring its elderly and vulnerable tenants are safe using data from electrical appliance usage in their homes.

Informatis is a spin-out from Sony's former energy R&D division. Its aim is to enable the collection, analysis and reporting of electricity usage in a home and to monitor unusual activity.

Informatis recently created an itemised view of an electricity bill showing how much energy each of the main electrical appliances uses in the home. As a by-product of this, Informatis launched a new 'assisted living trial' that Halton Housing is now rolling out among some of its customers who volunteered to take part.

The trial involves using AI-based sensor technology to help support some of Halton's elderly customers in their own homes. With a single sensor fitted to the main fuseboard in



each property, it can estimate the operational status and power consumption of key appliances.

By using cutting edge AI, the Informatis software will learn the normal pattern of behaviour of appliances, such as kettles, cookers, fridges or televisions, and will be able to then spot any abnormal patterns, in turn generating an alert on a dedicated app for close family, friends and carers. For example, if the kettle is always used at least twice a day and on a particular day it hasn't even been used once, this will raise an alert.

Lee Reeves, lead disruptor, Halton Housing, said, "We are very excited to be working with Informatis and using the latest technology and innovation in elderly care systems. By tracking the behaviour of electrical appliances in some of our elderly and vulnerable customers' homes, we will be able to pre-empt when we need to intervene to check on their welfare."

Jay Chinnadorai, senior board advisor, Informatis, said, "We have already launched this solution commercially in Japan and look forward to working with Halton Housing to do the same in the housing sector in the UK. Our company philosophy has always been about using 'technology for good' and this assisted living service is a great example of putting that into practice."

Safe Shores Monitoring launches lone-worker app

Safe Shores Monitoring has launched its Companion app that transforms a normal smartphone into a lone-worker protection device with unrivalled safety features as part of an £800,000 investment into its business.

Companion is a cross-platform, IoT-enabled lone worker application, connected to Safe Shores Monitoring's 'Police Preferred Specification' Archangel cloud to deliver a contextually-aware, intelligence-driven service.

Safe Shores Monitoring said that Companion delivers the most advanced 'man-down' detection system available by harnessing the array of sensors already available within smartphones and combining sensor data with advanced algorithms to validate genuine situations of jeopardy. The app also instantly pairs with the smallest Bluetooth SOS button on the market.

Tom Morton, CEO, Safe Shores Monitoring, said, "Our Companion App has been developed by our in-house developers to put the most effective lone-worker safety device in the hands of any employee who has a smartphone, plus Companion has features that aren't available anywhere else on the market."

The Safe Shores Monitoring's system can be connected to the company's state-of-the-art alarm receiving centre (ARC) that operates 24/7/365. The ARC and the Companion app are certified to the highest industry standards, which means it can bypass the 999 system to deliver priority access to police, fire and ambulance control rooms across the UK.



Stockport Housing's digital Intratone noticeboards



Intratone has installed 25 of its digital noticeboards in the communal areas of a number of Stockport Housing's tower blocks to improve tenant communications.

Stockport Homes wanted to communicate important messages to tenants such as maintenance works, lifts being out of operation and fire-safety information in a quick and simple way via a cloud-based system that can be accessed remotely around-the-clock.

The housing provider's asset managers, compliance managers and communications team can upload PDFs, spreadsheets, Word

documents or design their own messages, and can manage individual boards or whole groups at a time through Intratone's cloud-based management portal. The noticeboards use GSM technology so wireless networks are not required.

Jack Wylie, regional sales manager, Intratone, said, "The remote management through Intratone's cloud portal is one of the main benefits of the noticeboards – relaying up-to-date information to tenants is incredibly simple.

"The noticeboards can also be up and running in a matter of hours. In this case they were installed by Openview and come with 15 years' pre-paid GSM so there is nothing else to pay for. Stockport Homes will now reap the benefits by being able to communicate information to their tenants quickly and easily without needing to go on site."

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Connexus standardises on Enghouse Interactive



Connexus has standardised its operations on a contact centre and telephony platform from Enghouse Interactive, with implementation support from Voyager Networks. Connexus was formed from the 2017 merger of Herefordshire Housing and Shropshire Housing.

Before the merger, both Herefordshire Housing and Shropshire Housing had their own contact centres and telephony systems. After reviewing the situation, Connexus decided to standardise on the Enghouse Interactive Communications Center (EICC) from Enghouse Interactive.

Adam Huselbee, group head of ICT, Connexus, said, "We were impressed by EICC's ability to act as an operational hub within our contact centre, seamlessly supporting the omni-channel capability we need. We liked the intuitive TouchPoint user interface and saw Enghouse's ability to provide a single point for all call recordings as a key differentiator, helping to reduce costs and increase convenience for both us and our tenants."

Working with Voyager Networks on the technical implementation, Connexus deployed EICC at its three main sites, together with the Enghouse Interactive Quality Management Suite (QMS) for call recording and quality monitoring.

Connexus is now using EICC to interact with its tenants through social media, phone calls and emails as well as for

call wrap-ups. Most interactions are inbound around tenants' queries but Connexus also uses EICC for outbound interactions, often in response to issues highlighted by social media monitoring and sentiment analysis.

Huselbee said, "Implementing the Enghouse platform across our three main sites has made any changes that might be needed to the system much easier to achieve. Call recording is less complex too because there's now a single point where recordings are saved onto the system rather than the multiple gateways used before.

"By leveraging the analytics and insight EICC provides, we have gained better insights into how we interact with tenants, as well as the ways in which our tenants want to interact with us. We also have a birds-eye view of metrics and can 'slice and dice' the data in a range of ways, such as call queuing, how many calls the contact centre has processed, how many calls have been answered or dropped, and monitoring our KPIs."



Data management in housing – Better analytics, intelligence and access

Steve Coates, CEO, Brainnwave

In February 2019 and for the first time in history, there were more people in the world over the age of 65 than under five.

An ageing population raises the question; how can data and new technologies help housing providers to deal with some of society's most vulnerable people and complex needs? Keeping track of both properties and people is a genuine and growing challenge.

By having access to technology, which can dramatically enhance and support the outputs of those working in this field, it would be a reasonable assumption to think that monitoring geospatial, financial or logistical data and staying on top of pressure points would be far easier now than, say, 10 years ago. But you'd be wrong.

Goodbye, ZX Spectrum...

Many housing providers are still working with technology that is based on system architectures designed in the 1980s. These can come with expensive maintenance contracts and may be regarded as no longer fit for purpose.

And as much as we loved the ZX Spectrum when it first arrived, there came a point when we had to leave it behind and move on.

Through research and exposure to the housing sector, it is apparent where the main pain points lie:

- Complex systems needing expensive licences and costly upgrades;
- Not cloud-based and therefore requiring hefty infrastructure to support them;
- Poor data governance, with multiple users duplicating information in different places;
- Low trust in the data and its source(s);
- Inflexibility, leading to an overwhelming use of spreadsheets.

Housing officers are having to work with time-consuming, resource-draining,

ineffective systems instead of being able to focus on providing help and support to those who need it most.

Better data access

Having recently attended the Housing Technology 2019 conference, it was energising to see the breadth and scope of what businesses dealing with data had to offer. The message that kept coming across was that, "there is value and benefit from giving employees greater access to better data".

Brainnwave was established with this belief at its core. How could we help businesses to reach far beyond their existing parameters by providing them with a single, 'true' source of intelligence? How could technology and data access create significantly improved efficiencies and outputs, leading to more effective, more confident and, ultimately, quicker business decisions?

It is this single source of truth, delivered through our Ossian platform, which has enabled us to unlock opportunities which businesses had previously considered to be out of their reach.

Case study: Metropolitan Thames Valley Housing

Brainnwave was approached by Metropolitan Thames Valley Housing (MTVH) to help it identify where our service could address the complex challenges it faced. MTVH had three main objectives:

- Keep rents affordable;
- Ensure a high quality of service and housing;
- Seek out opportunities to expand in the face of uncertainty.

As experts in data engineering and applying new technologies, our approach was simple but strategic. We used a combination of the latest software, data and analytics to produce a dynamic, complete, single intelligence platform, which delivered a range of benefits to MTVH, including:

- Accurate rent management;
- Improved efficiency;
- Optimised customer engagement;
- Ability to respond to emerging trends;
- Gaining a competitive edge;
- Building trust.

We kickstarted the process by building an interactive data map to understand the complexity of data through the organisation. This identified existing risks in data process and provided a complete picture of the data available for analysis, and where it sat. We then connected this information to Ossian and created detailed intelligence which allowed MTVH to:

- Expose data to the right people at the right time;
- Enable people in the business to discover new insights;
- Have confidence in their decisions due to the improved reliability of the data.

Making spatial analytics easy

We made spatial analytics easy and incorporated open-source data such as OS Vector maps and demographic statistics to build the layers of information, creating a clear picture of insights such as age, marital/civil status, number of dependents, country of birth, living arrangements and so on. We also connected into local sources of social media and used 'sentiment' algorithms to understand the 'temperature' of the wider environment.

Building these modules of functionality that support strategic decision-making and enabling people to extract insights and intelligence from data delivers a number of real values – on investment, on time, on resources and on business efficiencies.

New insights from data

This process is not expensive, particularly when compared with some of the systems currently in place. As a result, MTVH is operating more efficiently than ever before and reaping the benefits of having access to data and insights that it simply didn't have access to before.

Data management in housing – Better analytics, intelligence and access

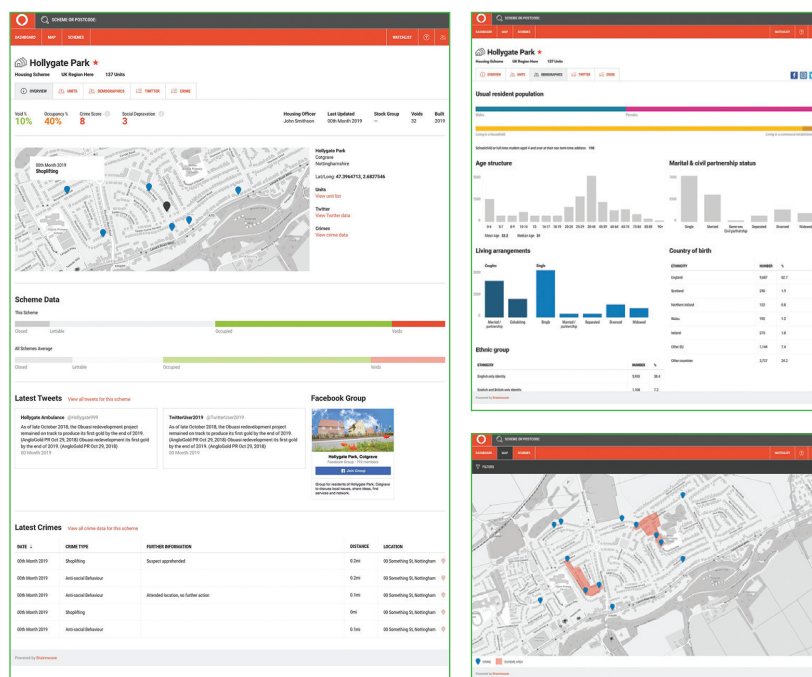
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Hands up, we're relative newcomers to the housing sector, but we learn fast and we want to make a difference. We recognise that this is a sector that looks after vulnerable people and we will always be mindful of that, ensuring that the technology we deliver has a genuine, positive impact on the lives of those that society can often leave behind.

This isn't rocket science but to those working in the housing industry, the potential that data technology can unlock in terms of business opportunities is of far greater value.

By providing a deep understanding of all the factors that influence the behaviour of tenants, enabling head-office staff and housing officers to address issues before they become problems and delivering an improved all-round customer service experience, well, that's worth going to work for each day.

Steve Coates is the CEO of Brainnwave.



Grand Union Housing's e-welfare system from Appello

Grand Union Housing has chosen Appello to provide its first digital living solution for some of its extra care residents in Bedfordshire.



Residents will benefit from apartment-to-apartment video calls, video door-entry system, upgraded smoke detectors and pendants for each resident to wear in case of emergency. Buttons have been replaced with touch pads, making them more accessible for visually- and physically-impaired residents. The Appello technology has been installed in 30 apartments and 17 communal areas.

Appello's digital system has replaced Grand Union's previous analogue system at Quince Court in Bedfordshire. The digital solution will reduce connection times to Appello's

alarm receiving centre from minutes to a few seconds. The installation was completed in December 2018, just four weeks after signing the deal with Appello.

Jan Davis, dementia and extra care project officer, Grand Union Housing, said, "The feedback from residents has been very positive; they have been impressed by the speed of different elements of the Appello system and how easy they are to use. The installation was fast, and the Appello team worked hard to reduce any impact on our residents during that time."

Smartline's e-health pilot project

Poor housing has been shown to have a major impact on people's health and quality of life. The Cornish research and innovation project Smartline is collecting data from environmental sensors fitted in the homes of social housing tenants in order to explore how technology can be used to improve the health and wellbeing of local communities. This information is now being used to support the development of new e-health and wellbeing products and services to help people live healthier and happier lives.

Smartline



European Union
European Regional
Development Fund

Smartline is one of the largest monitoring exercises of its type, certainly in the UK. Over the past 18 months, our sensors have been collecting information on indoor air quality, humidity, temperature, how much water is used and how much energy is used from 290 Coastline Housing tenants. The team are also monitoring indoor as well as outdoor air quality, with sensors checking the impact of particulates created by heating, cooking and smoking and nearby traffic, as well as those from new furnishings, cleaning products, paints and things like computer printers.

By comparing properties with varying numbers and profiles of people in them, we can see the energy usage, temperature and air quality in a home and what influences those factors. Combining this with in-depth interviews, we can unpick the factors that change health and wellbeing.



We are now using this information to work with businesses and organisations to encourage them to design better systems for managing homes in the future, and to invent new products and services to improve people's day-to-day lives.

Improving homes

Research shows that around 10,000 people die each year as a result of cold homes. We also know that there is a link between mould and respiratory illnesses such as asthma and allergies. By using the Smartline data, we can work with companies to develop new technologies and produce new products to address these issues.

Data on humidity, temperature and air quality is already being used in a project looking at the possible links between asthma and mould. Work is now taking place to understand the conditions under which mould grows that could inform the development of new smart-control systems to help minimise mould growth.

Other proactive solutions which could be explored in the future include dealing with over- and under-heating problems; introducing automated repairs and automated service reminders; and developing the next generation of smart leak detectors, positive-pressure units and fire & carbon-dioxide detectors.

Improving health & wellbeing

Smartline isn't just about using technology to help people live healthier and happier lives. Last year, our researchers held a series of 'guided conversations' with Smartline participants to understand their wellbeing needs, aspirations and desires for their communities. Residents told us that they wanted more activities which brought people together and helped them feel they belonged in their local communities, while others wanted to improve their physical health.

We have used the results of the surveys to organise community activities such as coffee

mornings, arm-chair exercise sessions and the development of new green spaces to help reduce loneliness, improve fitness and improve community cohesion.

Supporting innovation

While significant technological advances have been made in other market sectors, such as electronic management systems in cars, there appears to have been limited commitments to develop property assets that self-diagnose and automatically report repairs when they go wrong. Our researchers are looking at simple solutions to problems that are often easily fixed but which, if left unresolved, can result in disrepair, poor internal environments, health risks and unnecessary inconvenience to customers.

We are also supporting entrepreneurs to work up innovative ideas that explore new products, processes or services through Smartline's Idea Generation Grants. We also offer an In-Residence Scheme that finances the time enterprises spend on research activities so they can better understand and cultivate the research opportunities available and a Follow-On Fund which supports the development of new products, processes or services connected with health, wellbeing and digital technologies.

So far we have engaged with over 120 companies and agencies across Cornwall, with 63 of these receiving direct support. Based on our progress so far, we expect this collaborative research to lead to 18 'new-to-firm' products and 14 'new-to-market' products by later this year.

Smartline's project team, comprising Laurie Magowan (project manager) and Dr Tamaryn Mennear (research fellow) from the University of Exeter, and William Voyce (delivery manager) and Ian Manson (data integration manager) from Coastline Housing, were invited to talk about Smartline and the benefits the project is already producing for individuals and local communities at Housing Technology 2019. This article is based on their presentation at the event.

The Smartline project is led by the University of Exeter, in partnership with Coastline Housing, Cornwall Council and Volunteer Cornwall. Smartline is being financed as part of a wider European Regional Development Fund project.

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Self-service portals & Microsoft Dynamics... What next?

Andrew McCormick, Managing Director, RedkiteCRM

Once you've installed Microsoft Dynamics, what next? Well, the product itself has the flexibility to be extended in many different directions, and most of our customers are usually wanting to extend Dynamics so that others can access it via implementing a portal.

Portals are an attractive proposition to many customer-facing organisations, offering the ideal win-win situation for both the organisation implementing it and the user accessing it. Most customer-service studies point to customers wanting to answer questions themselves which in turn decreases the number of calls to the call-centre. With a decrease in the numbers of calls, the call centre then has more time to spend on other, more complex customer enquiries.

From a technology platform perspective, there are a number of portal technologies available. If you're implementing Dynamics online, then 'Microsoft Portals' are available; the portal solution comes as part of any implementation and can easily be installed from the Office365 portal.

Out-of-the-box

The out-of-the-box portals are suited to minimal customisations and are ideal for anyone wanting to keep things very simple and not deviate from the underlying data structure in Dynamics. Pre-configured templates are available, with the customer-service template giving access to the case entity and other customer-service elements in Dynamics, so in theory it's a good fit for housing providers. However, the level of customisation available is sometimes not enough for the portals that a typical housing provider wants to supply; many portals require heavy tailoring to customise the user interface and to allow for integration with

other systems, not just Dynamics.

This complexity is driven by the purpose of the portal. The most popular type of portal requested by our customers is a tenant self-service portal. With the tenant portal, the requirements vary considerably from one implementation to the next. They can be as little as providing a tenant with the capability to view their cases and activities, through to full self-service including viewing their rent statements and balance, making payments, logging and scheduling repairs and so on. Other non-tenant portal options are less commonly implemented; these types of portals typically allow external contractors to have access to Dynamics to update cases and/or jobs.

Whatever the requirements, the first decision is which portal solution is best. The out-of-the-box version may be capable of handling simple requirements, and that may be enough for now, but will it be able to handle greater complexity in the future? When looking at other products, do they come with out-of-the-box integration with Dynamics or is custom development required? The SDK that comes with Dynamics is powerful and can be used to integrate to any portal solution, but is custom development really the right approach?

In our experience, the answer is "no". By far the easiest and most flexible approach is to use a portal product that already contains connectors to Dynamics.

Reducing time, cost and risk

There are three reasons for this approach. Firstly, the time spent developing the portal will be much shorter; quite simply, if you're developing the integration from scratch then all the forms, login processes, password resets and so on will all require developing from the ground up, whereas if the integration comes as part of the portal then such functionality will already exist. Secondly, from a financial perspective, the portal solutions that offer the best integration to Dynamics are, surprisingly, often the cheapest to

buy, with one product being completely free. Finally, from a risk perspective, any bespoke integration is inevitably at the mercy of Microsoft upgrades which have the potential to cause any developments to either stop working or to work unpredictably, necessitating redevelopment.

Deciding on the scope of the project and the portal solution to be used are the first two steps in the development process; the next step is the alignment of data in Dynamics with the data to be displayed in the portal. When developing a tenant portal, the way data is displayed in Dynamics for internal users is unlikely to be the same as it needs to be displayed for tenants themselves, typically resulting in some field changes within Dynamics. For example, Dynamics might hold a weekly breakdown of all charges, such as heating, water, management and communal area charge, but this information is irrelevant and potentially confusing to tenants who just want to see their overall weekly charge. Technical arrears is another example; many balances are often stored against the tenancy record in Dynamics (typically overall balance, gross balance, net balance and sub-account balances, such as rechargeable repairs or court costs). Therefore in the portal it's important to show a simple balance figure and be clear whether the figure includes technical arrears to avoid confusion and unnecessary calls to the call centre querying the information displayed.

A personalised experience

Equally important as displaying appropriate data is the user interface. It's not just a case of making the portal easy to navigate but also ensuring that the user is presented with a personalised experience. Whenever a tenant logs into the portal, they should be addressed by name on the welcome screen and should be able to easily see the information that is most relevant to them; this is likely to be the date of their last payment, current balance and any open cases and

Self-service portals & Microsoft Dynamics... What next?

Continued from previous page

perhaps sub-account balances to provide a gentle nudge that they owe money. This personalisation lets the tenant know that they are being treated as a trusted customer with unique preferences which ultimately drives the use of the portal to the benefit of both the tenant and the housing provider. There are no short cuts to providing a personalised customer experience and much of the configuration involves a good deal of trial and error, with housing providers increasingly involving resident champions at an early stage to help with assessing the portal's usability.

Another key aspect of any portal development is ensuring that the data and services offered can be accessed regardless of what platform the tenant is using at the time. As mobile devices become more powerful and 4G coverage increases, there is a strong shift away from viewing websites on a PC or laptop to viewing them on a mobile device.

Extending Dynamics through portals can have significant benefits for tenants and housing providers alike, but there can be significant pitfalls that can result in

the portal becoming an expensive white elephant with poor user adoption.

By being pragmatic, picking the right portal solution and involving tenants in the process at an early stage, forward-thinking housing providers can benefit from the vast flexibility of Dynamics and allow their tenants to benefit too.

Andrew McCormick is managing director of RedkiteCRM.



Clownfish, anemones & symbiotic compliance

Dr Christopher Ford, CEO & Founder, MyHomePassport



MyHomePassport's CEO and founder, Dr Christopher Ford, considers the 'missing piece of the jigsaw' that incentivises tenant compliance to promote better outcomes for both tenants and housing providers.

These days, thankfully, there is much greater emphasis on creating better living environments, offering improved customer services, digitising interactions and creating housing provider performance indicators.

It is so important that the social housing sector improves performance and service delivery. It is making great strides to do so, either as a reactionary measure to recent tragic events or by organic evolution. However, it takes two to tango, and housing providers must rely on a partnership between them and their tenants. One relies on the other to behave and perform at levels that allow the symbiosis to survive without either side suffering.

Our marketing uses the analogy of the clownfish and the sea anemone; one provides the safety of a home while the other protects and looks after it, and both prosper when efforts are balanced.

A standard housing management system has many pieces and must include CRM to provide overall control, monitoring, management and communications. There must be a rent accounting system for rent setting, payments, contact management, arrears collections and processing. A repairs and maintenance area is needed for inspections, compliance, repairs, requests, evaluations and supplier invoicing. Then there will be the asset management database with its plans, surveys, certificates and other data. The financials and HR should be covered and you may have a reporting system to allow better communication and data analysis, customer apps and contact management. The list goes on...

Yet, is there one piece missing?

One major strain on any budget is dealing with tenants who, for various reasons, fall into rent arrears or perhaps don't look after the property as well as they should. They may also cause some nuisance

with their behaviour, which are the pain points for all housing providers. Huge resources are focused on dealing with the consequences of these issues, and millions of pounds are spent each year due to non-compliance. One way to look at it is this minority group of tenants gets all the attention!

In some ways, these tenants have little control over the hardships they face, such as loss of income, or an illness or changes in benefits income. There may be behavioural issues within the family or mental health issues. These require careful management (and associated high costs) by the housing provider. However, there are compliance issues in areas such as rental default, property care and behaviour that are controllable by the tenants themselves. Other types of non-compliance, such as restricting access for inspections, illegal sub-letting or uncontrollable pets, all create pain for the housing provider.

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Clownfish, anemones & symbiotic compliance

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But what about the good guys?

Logic dictates that it must be inevitable that the good tenants suffer because of the behaviour of the minority. If such resources are spent on dealing with 'non-compliance', then less must inevitably be spent on rewarding the 'responsible' with better facilities. This means that the overall and theoretically symbiotic relationship of responsible tenants and responsible landlords is unfairly weighted.

All that is needed to help shift the balance back is to incentivise and positively reward compliance.

Until now, negative consequences have been the only answer to unwanted behaviour. In basic behavioural psychology, the essence of successful behaviour modification is to reward 'the good' and not to punish 'the bad'. Now technology is available to positively modify behaviour and can be bolted on to any existing or new management platform.

Some housing providers have more choice than others regarding to whom they let properties, yet the costs of payment defaults, property damage, anti-social behaviour and evictions affect them too.

Better ways to assess tenants' trustworthiness during the onboarding process are now available, with tenants being fully pre-qualified using wider data sets than the traditional 'credit score' based referencing. With ongoing access to data that the tenants themselves own, further safeguards come into play, such as instant and forensic authentication of 'right to rent' documents which combat the multitude of fakes available on the black market. Also, it's now possible to have an early-warning system that detects any signs of sub-letting.

It has been proven many times by different housing providers that 'empowerment through involvement' creates more sense of responsibility and this results in significant cost savings. When you combine involvement with compliance rewards, the benefits become extremely significant. Empowering your tenants with their own smartphone and your branded app greatly improves communication and PR. Time- and location-stamped video technology allow the self-reporting of maintenance issues and the evaluation of repairs. It also allows self-inspections of smoke alarms or general property condition.

These measures are a time and cost saving for any housing provider while increasing preventative measures. The compliance and involvement in these areas can feed into an algorithm that will raise a tenant's rating based on compliance, rental payments and neighbourly behaviour. The positive ratings for tenants encourage benefits, such as priority upgrades, extending contracts, right-to-buy, upward mobility, better credit ratings and any other reward the housing provider may inventively provide.

MyHomePassport, working with MIS Active Management Systems, has established that the balance of symbiosis can be restored by simply plugging this last piece into any cloud-based management system via an API.

So for clownfish and anemones alike, there is no longer a missing piece in the jigsaw, identifying and rewarding compliance is possible, and 'empowerment with involvement' saves costs as does a much improved onboarding process.

Dr Christopher Ford is the CEO and founder of MyHomePassport.



Adapting to changing customer expectations

Etienne de Klerk, Senior Solutions Engineer, Salesforce.org

With the arrival of the fourth industrial age, we have all experienced changes to our everyday lives that were at one time beyond the scope of our dreams.

As consumers of products and services, our expectations around ease of transacting have been transformed and we want efficient, effective interactions, personalised to our needs. Housing

providers have not been immune to such colossal changes in what their customers want and expect, and meeting those expectations is both a challenge and an opportunity to add great value.

Advancements such as the advent of biotech will have profound implications for future life expectancy which in turn directly affects housing providers as the number and type of properties that will be required in future years changes. Closer to home, the explosion of IoT (internet of things) and the rapid adoption of technologies such as voice assistants

by tenants promise to complicate the landscape of customer expectations even further.

In addition to living longer, customers are increasingly critical of current levels of service delivery, which often lacks a user-friendly interface, an ability to self-serve and an efficient resolution of issues. This new-found set of expectations is driven by the consumption of slick technology from the likes of Facebook and Amazon, and it increases the service-delivery demands placed on housing providers, especially as younger tenants move in. Equally,

Adapting to changing customer expectations

Continued from previous page



a solution is needed to meet the care requirements of elderly tenants through effective case management and the coordination of numerous agencies and stakeholders such as care workers.

Some of the key challenges in the area of effective tenant case management are keeping track of case statuses when systems are siloed and unintegrated, with additional work being created for cases that could be resolved with self-service, a lack of much-needed analytical capabilities to enable the measurement of performance, and low satisfaction from tenants experiencing a disconnected service from their housing provider.

Let's hone in on one of these challenges; housing providers' struggle to better connect with their tenants. Housing providers are not only focused on property management but also on developing deeper community relations. As customer expectations increase via multi-channel services, meeting customers where they are is key to increasing satisfaction.

A good example of customer engagement that has changing expectations is a repair case relating to a boiler in one of your properties.

Faced with a boiler problem, a subset of tenants would prefer (or even demand) to pick up a phone and speak to someone, while for another subset the least-preferred method is a phone call. As a consumer, I expect to communicate using my preferred channel at my preferred time. For the housing provider, this means catering to, say, Instagram, Twitter, Facebook, WhatsApp, SMS, web, email

and web-chat, and the list continues to grow. Aside from the increased technical complexity of all those channels, there are also staffing implications; perhaps for 'Jules' in your back-office, 'Twitter fear' is real and Instagram is what again, exactly?

This is where a platform is needed to reduce complexity and to seamlessly adapt to conversations across different channels and transparently embrace whatever is popular tomorrow.

With Salesforce, it doesn't matter to Jules which channel the tenant chooses to communicate on. When Salesforce receives the incoming message, a case is automatically created which links to the tenant's CRM record as well as to other systems as needed, providing a single unified view across your different systems.

When Jules views the case of the broken down boiler, she not only has all the relevant information at her immediate disposal but is presented with an intuitive interface already adapted to the chosen channel, allowing her to get on with addressing the issue and replying as normal, while the platform handles the rest. No more Twitter fear here.

With all siloed systems connected by Salesforce, Jules is now efficiently dispatching cases, so how can we improve that? By reducing the volume of incoming cases.

Salesforce empowers customers and housing providers to communicate more effectively with each other, self-serve and build stronger relationships, leading to increased satisfaction and faster issue

resolution, with the option to raise a case or not. A double-win, with satisfied customers and a reduced case-load for agents so that they can concentrate on more complex cases.

In addition to reducing channel complexity, the Salesforce platform is infused with machine-learning technology (AI) known as Einstein. In the background, Einstein crunches numbers and uses 'natural language understanding' to drive intelligent chat-bot interactions and to measure sentiment for the case and associated social messages. Einstein presents Jules with handy graphical indicators so she can better triage and adapt her responses at a glance.

Einstein can also be put to task providing suggestions for the next best actions or predicting the likelihood of rent being paid next month; both valuable insights that without the platform would require complex development along with a data scientist.

In summary, to effectively adopt a customer-centric approach, ensure you have achieved the following:

- Establish a 360-degree view of your tenant relationships;
- Empower your tenants and increase efficiencies with self-service;
- Centralise and ease end-to-end case management;
- Bring case management to staff, whether in the office or on the move;
- Get the important insights you need to measure and manage performance.

Etienne de Klerk is a senior solutions engineer at Salesforce.org.

Taking stock – Asset management software in housing

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Housing Technology interviewed asset management software specialists from Esri UK, MIS Active Management Systems, Northgate Public Services, Orchard and PIMSS Data Systems about how housing providers should be choosing and using the latest generation of housing asset management software.

Do you really need a dedicated asset management system?

With many housing providers, particularly smaller ones, using either their housing management system or standalone spreadsheets to record and monitor their property assets, to what extent do housing providers need a dedicated asset management system?

Orchard's head of assets, John Buckland, said, "Social housing providers do need specialist asset management tools, whether provided within their housing management system or through a separate, dedicated application. Our experience is that the depth and breadth of functionality and domain expertise required is still not there in the solutions offered as add-on modules to existing housing management systems, which is why there is a continued demand for dedicated systems."



"Some of our geospatial customers have begun to question whether they actually need a dedicated asset management system, and whether a geographic information system could be an alternative."

Rob Nichols, Housing Lead,
ESRI UK

"As for the argument around having a 'single system for everything', that is being effectively countered by those housing system suppliers who have acquired specialist asset management systems and devoted resources to getting the integration right."

PIMSS Data Systems' asset management consultant, Ruth Dent, said, "The RSH's

VfM standard clearly states that social housing providers must 'ensure optimal benefit is derived from resources and assets'. To deliver that, there needs to be a robust understanding of assets and that is generally accurately delivered by a piece of dedicated software.

"Many housing management systems will hold component data, but will they allow you to overlay Decent Homes data, carry out 'what if' appraisals and identify if components are failing ahead of their expected lifecycles? Will they let you overlay compliance data to prevent you from servicing something you intend to replace?"

Recent software changes

Referring to recent developments with asset management software, MIS Active Management Systems' managing director, Chris McLaughlin, said, "In the past, asset management systems were created to hold basic information about the property, such as the address, but over time there have been greater expectations that all aspects of the properties should be included, and due to some unfortunate incidents over the years, a greater emphasis on reporting and compliance has come about. This has driven organisations to think about how their data is used, what it is used for and whether or not they've been holding the right data."

Trevor Hampton, director of housing solutions at Northgate Public Services, said, "Asset management systems are now more affordable, enabling housing providers to make better-informed decisions. For example, with building information modelling (BIM) technology, it's much easier to see if a property has high energy consumption, poor insulation

or limited ventilation. We can also use geographical information systems (GIS) technology to evaluate specific areas and locations. GIS is really useful for spotting trends; for example, is there one property where there are frequent call-out requests to mend the boiler or is there an area that suffers from above-average incidents of anti-social behaviour?"



"An asset management system is only as good as the data. Some time and love need to be put into data inputting and then keeping it up-to-date."

Ruth Dent, Asset Management
Consultant, PIMSS Data Systems

Choosing the right system

Dent from PIMSS Data Systems said, "A user-friendly system is the key consideration to ensure user buy-in and widespread usage across the organisation. This is vital because asset management systems can often and should be extended far beyond just the direct management and monitoring of property assets."

"The flexibility of the system is also very important. The 'out-of-the-box' functionality is probably fine to start with, but every housing provider will need something slightly bespoke, so will your software provider work with you to ensure you're meeting your desired outcomes? And don't forget that all software has a limited shelf-life and as regulations and business priorities change, your provider needs to be agile enough to change with you. You don't want a product that is going out-of-date and you need to know that the system will continue to be invested in."

Northgate Public Services' Hampton said, "A single solution should be at top of your list when selecting an asset management system. AM systems have been great at capturing information on compliance, condition, valuations and supporting planned and cyclical programme decisions, but this is often done in isolation. Bringing all the intelligence together in one place will make it easier to improve and predict the outcomes of decisions. Mobile working should also be on your wish-list to improve productivity and efficiency."



"The future of asset management systems is more GIS functionality, integration with building information modelling, IoT data, enhanced offline working and more flexible workflows."

John Buckland, Head of Assets, Orchard

Gaining the expected benefits

In terms of the expected benefits, McLaughlin from MIS AMS said, "A good asset management system should act as a portal that holds vast amounts of data about properties that is instantly accessible. It should also cater for repetition and be easily accessible from other products with data being driven asynchronously between different systems. If more information needs to be stored, this should be possible in a matter of clicks and be instantly available, and not be reliant on third parties to change an interface."

Orchard's Buckland said, "The main benefits should be time-savings in the automation of processes and the removal of the need for double keying. The asset management system's integration with your existing housing, repairs and finance systems should make trusted data available to all, remove the need for reconciliation between applications, and make consistent and accurate reporting easier to achieve."

Avoiding the pitfalls

Northgate Public Services' Hampton said, "As with any software, the pitfalls are often linked to humans rather than technology. Without a clear set of procedures covering the maintenance, access and use of data, you run the risk of compromising the integrity of the information. For example, if your asset managers are making copies of data or extracting information into their own personal spreadsheets then you are back to square one, with pockets of information being stored in different places across the organisation."

PIMSS Data Systems' Dent said, "Like any system, an asset management system is only as good as the data. Some time and love need to be put into data inputting and then keeping it up-to-date."

Help with regulatory & legislative compliance

Orchard's Buckland said, "Simply put, asset management systems should be able to deal with all areas of compliance. In addition, systems should be flexible enough to handle any requirement for periodic inspections or servicing and to manage no-access processes, gas and electrical certificates and repairs system integration."

McLaughlin from MIS AMS said, "An asset management system has the ability to hold an infinite amount of information about a property; this information could be minimal or unlimited. If the right data is stored correctly, the asset management system will provide users with instant access to report-ready compliance and legislative data."

Inter-application integration

Hampton from Northgate Public Services said, "While the challenges of integrating an asset management system are much the same as any other integration project, it's very important to look for an open system that can easily plug in with your existing applications to give you the freedom to work how you want to and the flexibility to adapt in the future. Integration will always be limited by what information can be passed between the other systems and the availability of those systems during integration, so reducing the number of systems involved in the process must be a priority."

PIMSS Data Systems' Dent said, "Inter-application integration is a vital part of the puzzle and has more impact than housing providers often realise. Generally, there is a relationship where all applications use their respective strengths to create a robust, symbiotic and holistic offering."



"Future asset management systems will offer a Google-type ability to bring information to the fore, and be driven by dashboards and automation."

Chris McLaughlin, Managing Director, MIS AMS

The next generation of asset management software

McLaughlin from MIS AMS said, "We think that future asset management systems will offer a Google-type ability to bring

information to the forefront. They'll be driven by dashboards and automation, allowing all areas of the system to be seamlessly integrated, predicting decisions and providing AI assistance with data-driven tasks."

Buckland from Orchard said, "In the future, I see more GIS functionality, integration with building information modelling, IoT-derived data, enhanced offline mobile working and more flexible workflow capabilities. Data science will start to deliver actionable insights and predictions, and all of these will be deliverable through public cloud-hosted solutions."

Esri UK's housing lead, Rob Nichols, said, "As a provider of geospatial technology, we have always felt that our customers needed an asset management system for that all-encompassing view of everything. However, in recent years, some of our GIS customers have begun to question whether they actually need a dedicated asset management system at all, and whether a geographic information system could be the alternative."



"If asset managers are making copies of data or extracting it into spreadsheets then you are back to square one, with pockets of information being stored in different places."

Trevor Hampton, Director of Housing Solutions, Northgate Public Services

The GIS would act as their 'system of record' because all assets could be managed geographically. Using the tools that come with a geospatial platform, it could then form the basis of their 'system of insight' to gain new understandings and awareness of all their assets.

"Taking it a step further, the geospatial software would allow them to take advantage of the off-the-shelf applications and share the asset data with the rest of their organisation and even with tenants, thereby providing the 'system of engagement' that most housing providers are striving towards."

Housing Technology would like to thank Rob Nichols (Esri UK), Chris McLaughlin (MIS Active Management Systems), Trevor Hampton (Northgate Public Services), John Buckland (Orchard) and Ruth Dent (PIMSS Data Systems) for contributing their views and comments to this article.



Driving efficiencies in housing

Tim Andrew, CEO & Co-Founder, Localz

With a shortage of almost four million affordable homes in the UK and existing social housing properties hitting the headlines, the UK's housing providers are under severe pressure. It is estimated that one in three homes in England are classed as 'non decent' and don't meet the basic government standards for what is deemed as a liveable home. This means there are tens of thousands of tenants whose homes are in dire need of repair. With forever-squeezed budgets, how can the UK's housing providers reduce costs and improve efficiencies without impairing service quality?

News of incidents within social housing in the UK has led to both regulators and tenants putting housing associations under greater scrutiny. Tenants renting social homes are more aware of the dangers of unsafe gas and electrical wiring, how damp affects their health and they know their rights and are acting on them. This is causing an influx of home maintenance and repair requests. In order for RSLs to meet the demands they need to be able to complete jobs more efficiently.

There are a variety of challenges when it comes to the management of property maintenance. Scheduling appointments at convenient times is the start of the issue. Today's customers are busier than ever with work commitments and the school run; they want appointments to fit around their schedule, not vice versa. The majority of service providers still operate with 4-5 hour service appointment windows, and this

leads to impatient customers bombarding contact centres chasing the ETA of their appointment. Worst of all, many scheduled appointments aren't met due to failed access to the property, costing around £60 per missed appointment.

The 'Uberisation' paradox

Customers' need for quick responses from service providers demonstrates that their mindset is becoming increasingly individual-centric. Rapidly-hiking customer expectations, alongside the fact we are an increasingly time-poor society, has created the 'individual economy', or 'iconomy'. Each of us expects service providers to have apps and solutions which allow us to see our appointment progress in real-time. Transparency and two-way communications on our smartphones are now a standard expectation. The transparency provided by the likes of Uber, DPD and Amazon is leading to customers expecting the same from all service providers.

Not only do people want visibility and transparency but they also want control. The boom in self-service is becoming part of people's daily lives. From self-checkout at the supermarket to mobile banking, people enjoy being free from long call-centre queues and having control over their own lives. Entrusting customers with booking their own appointments makes them feel respected while having the convenience of accessing key information around the clock. Providing tenants with Uber-style self-service, real-time operative tracking, super-accurate ETAs and two-way communications not only gives a fantastic customer experience, but will also produce significant operational savings for RSLs across the UK.

"On my way"

It's vital to look at leaders in other sectors who are providing the services that customers are getting used to. This is where other providers are going to be benchmarked. British Gas has developed its customer experience platform and

is seeing dramatic improvements to its first-time access rates. It's 'on my way' communication platform advises customers of their engineer's live ETA, enabling them to track their approach on a real-time map and interact directly with their engineer when needed. Customers are more informed and therefore aren't contacting call centres to chase their engineer's arrival.

British Gas has seen no-access, failed appointments fall by 20 per cent. Sending notifications reminding customers of their appointment enables cancellations to be made if needed, allowing others to take that appointment slot. It also gives customers the freedom to get on with their day; if they can see that their engineer is due to arrive in, say, 55 minutes, they can leave the house, pop to the shops and avoid missing and having to reschedule an appointment.

Translating this use-case to social housing would mean significant annual savings. With a typical inbound call costing around £5 and a no-access, failed appointment costing £60, RSLs could each save hundreds of thousands of pounds per year. Enabling real-time tracking via a smartphone will reduce inbound calls because tenants will know when to expect their service operative and also increase first-time access to properties. As well as the cost savings, customers would also benefit from better experiences, leading to higher satisfaction ratings and an improved image of RSLs as innovators.

Going the extra mile

In the commercial world, customer service has a tangible value – it drives loyalty, repeat purchases, upselling, referrals, renewals and competitive advantage. By comparison, the world of social housing is very different. Almost all RSLs have waiting lists of potential tenants desperate to move in, and they could let their properties several times over. Rents are mostly regulated, so they can't translate customer-service excellence into higher prices. In

Driving efficiencies in housing

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spite of this, customer service remains important in the sector and all RSLs strive to meet or exceed annually published targets. Therefore, the typical benefit of 'better customer satisfaction' has an intangible value in the social housing sector but nonetheless is important.

With the continual emergence of new technologies, RSLs are both challenged and faced with endless opportunities

to improve their services. It's therefore vital to take a critical look at which technologies will provide the most value. The development of location-aware mobile technology giving customers more control will arguably provide the greatest cost savings for RSLs now and in the future. By providing service transparency and real-time tracking, tenants will not only feel in control but they are also less likely to miss an appointment. By improving first-time

access rates, RSLs will be able to serve more tenants and divert spending into other areas. Not only will it relieve some of the financial and operational pressures RSLs are under, but it promises to improve image and reputation in a time of extreme scrutiny.

Tim Andrew is CEO and co-founder of Localz.

NDL app mobilises Settle's surveyors



Settle Group has saved hundreds of hours of administrative time and reduced by two months the surveying period for its annual repairs programme by introducing mobile working. Its building surveyors are now using an app built using NDL's awi MX software when they inspect properties, eliminating paper forms and enabling the automatic transfer of reports into its Aareon QL housing management system.

Every seven years, all of Settle's properties on specific estates are individually inspected and assessed for repairs, with any remedial work then scheduled for the following year. Therefore at any given time, one seventh of Settle's property portfolio is undergoing a bespoke maintenance programme, with another seventh being surveyed for repairs the following year.

Before the introduction of the NDL mobile-working software, when Settle's surveyors visited its properties, they used numerous printed forms to record the repairs needed, encompassing 500 types of entries covering task, trade required, quantity, location, unit of measurement and other miscellaneous extra works. These forms were then manually added to a spreadsheet, double-checked by a surveyor and corrected if necessary, and then transferred into the Aareon housing management system, with the whole process fraught with data duplication and manual processing errors.

As an existing user of NDL's awi SX integration toolkit, Settle realised that awi MX could be used to automate its property inspection forms by enabling Settle's staff to design, deploy and manage multiple bespoke and secure mobile applications across different types of devices.

Indy Bhogal, software business analyst, Settle Group, said, "Before I started developing an app to replace the complicated paper forms used by the surveyors, I needed to understand exactly what the surveyors did and why they did it, so I spent a lot of time out on site with them as well as discussing in detail with Settle's property team throughout the development process exactly what they needed from the app.

"It was really important to understand the surveyors' processes and how you can mimic those so that they don't have to learn something completely new. As a result of doing this, we got the app right from the start rather than having to go through lots of iterations, which meant the surveyors really wanted to use it."

Settle's NDL-based app runs on iPads and replicates very closely the previous paper system. They can work either on or offline and connect either through 4G or wi-fi, uploading and downloading data to and from Settle's housing management system.

Steve Foulds, building technician, Settle Group, said, "I had no idea that technology could work so well in something like this. Our IT team was brilliant in the way they did this; they listened to everything we said and came up with exactly what we needed to support our inspections.

"As well as streamlining the way we enter information, the new system gives us real-time information on the properties we are inspecting when we arrive. It's a clean, seamless and accurate way of working. Settle's managers can also get very realistic real-time overviews of what's going on. It's a great piece of kit – everyone is sold on it."

Bhogal said, "From a developer's perspective, NDL's awi MX is very easy to pick up and does a great job. It allows you to develop exactly what you want to make it as user-friendly as possible."



Axis turns to Fast Lean Smart

Axis Europe is now using Fast Lean Smart's automated scheduling, planning and route optimisation software for its team of housing maintenance and repairs operatives. Axis was previously using a number of different service management software packages and a manual scheduling system.

Russell Measor, head of data and delivery, Axis Europe, said, "We wanted a user-friendly scheduling system that could increase the productivity

of our field operatives while reducing travel and back-office administrative costs. We also needed a system that would integrate with our new Microsoft Dynamics 365 CRM platform.

"The main reason we chose FLS was the speed and high performance of Visitour and the fact that we can tweak its algorithms to fit our needs. With speed profiles and real-time traffic data, Visitour can plan the best routes for our operatives. Real-time tracking will increase our engagement with customers and reduce our no-access rates. Importantly, Visitour will enable us to give customers details of the relevant operative's exact, up-to-the-minute location, making them less likely to pop out when an operative is round the corner."

As part of FLS' sales process, it created customised scheduling tests for Axis. Measor said, "We were astonished by the results of the scheduling tests. Rescheduling our appointments using Visitour demonstrated a considerable reduction in mileage and driving hours, and showed that with Visitour our engineers could complete more jobs per day.

"We thought that the FLS team was more down-to-earth than the other providers we saw. They were less salesy and gave us a more tailored service. We didn't feel like just another sale; we felt that they actually cared about our business."

Warwickshire Council's paperless inspections with NDL



Warwickshire County Council has transformed the stock-condition inspections of its £1 billion housing portfolio with a new inhouse-developed, NDL-based Condition Surveys app.

The council originally had a manual, paper-based process involving inspectors using pen and paper to gather information on site then returning to the office to collate the information and manually add it to the council's stock-condition survey system. The council then tried to develop an Android-based app, but the app was difficult to develop and maintain and only

worked on Android devices with a single-screen resolution.

After realising that the app didn't work properly, the council decided to redevelop the app after buying NDL's MX mobile working toolkit. The first minimum viable product (MVP) version of the new app was delivered within a couple of weeks and then honed over the following few weeks based on feedback from the end-users.

The final Condition Surveys app allowed the council's surveyors to carry out detailed onsite data collection through full room-by-room surveys. For example, the average secondary school has over 400 rooms, with each room containing eight elements. The condition of each element, which can include multiple defects, is recorded along with any supporting photographic evidence. The app also captures all room areas and perimeters as well as a schedule of rates to allow for

the easy calculation of carpet coverage, decoration required and job costing.

Once the onsite survey is complete, data and photos are automatically transferred from the app to AtlasWeb, the council's own property management system, before final quality checks are made online. Once the council is happy that the survey has been correctly completed, the survey is released to the customer.

On top of its primary inspection functionality, the app also has the ability to easily add new room elements, set a room as 'inaccessible', and copy elements from other rooms to speed up data entry.

Owen David, ICT programme delivery manager, Warwickshire County Council, said, "Following the digitisation of our inspections process, we have significantly improved the quantity and quality of condition data captured and made ongoing time and cost savings."



Curo Housing's Sunrise ITSM

Curo Housing is using Sunrise's IT service management software to support its 550 staff.

Curo's service desk team looks after over 1,000 devices, including phones, PCs and Chromebooks. Since Sunrise went live in 2014, over 44,000 service tickets have been raised, resulting in a 98 per cent satisfaction rating from Curo's end-users.

Since the initial implementation of Sunrise ITSM, Curo has also deployed Sunrise's self-service 'one-stop shop'

portal alongside its existing email, phone and face-to-face channels. The portal includes an asset register of all devices assigned to members of staff as well as an up-to-date view of any outstanding service tickets.

Curo has extended the use of Sunrise beyond just its IT department; staff can log equipment requests with the facilities management team, the HR is 'onboarding' new staff via the platform, and the asset functionality is helping Curo to track all electronic devices from when they are bought, through their lifecycle to final disposal.

Phil Bex, service desk manager, Curo

Housing, said, "With Sunrise, how we operate the service desk is very much in our hands. It is very configurable, flexible and cost-effective, giving us the ability to make continuous improvements, so support is as seamless as possible for our users."

In the future, Curo plans to use Sunrise's asset management functionality to log and track all tools in its mobile operative's vans so that they each know exactly what they have been issued with and to ensure that all necessary regular checks and safety certifications, such as PAT testing for drills and electrical equipment, are flagged when they are due.

YHN trials Mobotix thermal imaging & fire prevention from OpenView

Your Homes Newcastle is taking an innovative approach to fire safety with a pilot project using thermal imaging cameras. YHN has installed Mobotix thermal-imaging cameras in three of its 45 multi-storey blocks across Newcastle in a trial partnership with OpenView Security Solutions.

The project involves the installation of Mobotix thermal cameras in bin-chute rooms to detect tiny increases in temperature, triggering an alarm in YHN's central enquiry centre before any

fire has had a chance to take hold. This ensures that an alarm is raised with the fire service within seconds of a possible fire. The camera continually monitors the temperature in the room, with information relayed back to the fire service enabling them to better prepare their response.

David Langhorne, assets and development director, YHN, said, "The tragic events at Grenfell Tower have undoubtedly put fire safety in multi-storey blocks under a microscope, but we have been trialling new measures in our multi-storey properties for some time.

"We pride ourselves on being innovative, so it was an easy decision for us to test something that had not yet been adopted elsewhere. The early-detection system provided by OpenView has many benefits; most importantly, the faster response time from the fire service

means the potential risk to residents and their properties is minimised."

The Mobotix thermal camera's lens is triggered when an unexpected heat pattern occurs and automatically sends an alert to the central control room. Images from the thermal lens are automatically presented to operators, enabling the exact location of hotspots, such as smouldering fires, to be pinpointed. A standard CCTV lens provides a live feed for further verification of events.

Alan Robson, assistant chief officer, Tyne and Wear Fire & Rescue Service, said, "It's great that YHN is innovating in this way. Using technology to monitor storage areas like this helps improve the information we receive about incidents. This technology can reduce false alarm-calls and improve our response to fires."





Whatever happened to the internet of things?

Stewart Davison, Business Development Director, Gas Tag

This article is based on the presentation I recently gave at the Housing Technology 2019 conference; coincidentally, it was exactly five years ago at the same event that I first began talking about the internet of things in social housing.

Whenever I have met social housing and IT professionals, they have reflected that placing sensors into properties can provide interesting and useful data to their organisations not only on how their assets are performing, but also on how people interact with the properties they are occupying.

Pilot projects only

Scouring articles online, there are always a small number of IoT pilots happening in our sector, but so far no one seems to have moved past a pilot stage and into a large-scale deployment. Why is that? About a year ago, I set out to look at this issue and create a realistic IoT proposition for our sector. This led me to speak at this year's Housing Technology conference to put my findings to the audience.

I recently joined a technology company called Gas Tag where the environment is one of innovation, so IoT was a potential growth area and one that supported our mission of 'safety through technology'. Almost immediately after joining, I was put in touch with a contact at Vodafone UK and a meeting was arranged to discuss what I was researching.

Narrow band IoT

The first question I was asked at this meeting was, "Have you heard of narrow band IoT (NB-IoT)?" My answer was a simple, "No". It was this opening, and the subsequent conversations, meetings and demonstrations from Vodafone that allowed me to understand why IoT has

potentially not broken out of the many pilots that have been done.

While IoT is seen by many people as a useful application of sensor-based technology and data analysis, there has been a bewildering array of technologies that have been proposed to deliver on the IoT dream; should we look at 2G, 3G, sim cards, LoRA networks, Sigfox or (of course) wi-fi?

Shared network vs. self-managed

When presented with all of these different means of connecting sensors, it's no wonder that housing providers are hesitant to commit resources to a large-scale implementation. Without going into detail on each one, these existing network technologies fall roughly into two camps; one we call 'shared network', the other 'self-managed', with wi-fi standing a bit along, but for the purposes of this article, we'll put it in the 'shared network' camp.

What do I mean by shared network? In the case of IoT, it means that the data transmitted from sensors is actually going out on a network that is used for many other applications, most notably mobile voice communications, therefore there can be transmission or signal degradation issues coupled with hardware technology (especially in the case of wi-fi where hubs are required to manage data transmission) that hasn't been designed for the purpose these networks were originally intended for. The second camp, that of self-managed networks, sees LoRA and Sigfox as technologies that potentially require the organisation using them to also manage the network they create. These two camps mean a mix of technologies, hardware and potential resourcing issues to manage and maintain them if they want to scale.

Dedicated IoT data transmission

Well, what about narrow band IoT? In the presentation at Housing Technology 2019, I was ably supported by Daniel Winn who leads Vodafone UK's NB-IoT team. Dan succinctly explained what NB-IoT is and why it's a technology that the social

housing sector should pay attention to. NB-IoT is a network specifically designed around the needs of IoT and backed by a worldwide carrier (Vodafone). It has been designed with sensor hardware in mind and therefore is a low-power, low-latency IoT network. This means very low network and data costs, a 10-year battery life on sensor hardware packages (which means cheaper sensor packages), data transmission that can penetrate through concrete bunkers and, most importantly, the ability for these packages to self-transmit across a licensed spectrum that is dedicated to the transmission of IoT data, so no hubs!

Avoiding supplier lock-in

The audience then heard from Dan that as manufacturers take advantage of the system, more and more different sensors will be made available and will be able to easily fit into any existing NB-IoT deployment, giving organisations piece of mind that if they initially invest in one hardware solution for the sensor packages, they will not be locked into that particular manufacturer or supplier. This means that they can add more sensors and devices based on business needs and at a pace to suit them.

We then explained how Gas Tag is leveraging all the benefits of NB-IoT in developing a packaged product specifically for UK social housing. This led to a Q&A session where both the NB-IoT network and its uses were explained in more detail. It was very gratifying to see the enthusiasm from audience members who sought out Dan and me to explore in more detail what NB-IoT can deliver for social housing; we look forward to continuing these conversations following on from Housing Technology 2019.

First major IoT deployment

But so what? Well, it's not just all talk; the work Gas Tag has been doing with Vodafone has led us to propose the first large-scale NB-IoT deployment in UK social housing and we are currently in

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negotiations with housing providers to deliver sensor packages to thousands of homes. We hope to cover this in more detail in future editions of Housing Technology.

For the five years that I've been talking about IoT in housing, I have always had a slide stating that the world of tomorrow was today. With the pioneering work of Vodafone, the vision of social housing providers and the innovative spirit of Gas

Tag, the world of today is informing our tomorrows and at last making IoT a reality in social housing.

Stewart Davison is the business development director at Gas Tag.



How low can you go?

Gareth Edwards, Managing Director, Rapid Information Systems

My experience working with social housing providers regularly highlights what a huge challenge it is to be a 'good' landlord. Against a backdrop of regulatory change, budget cuts, skills shortages and the pressure to modernise, IT departments and digital teams struggle to provide the levels of customer service and employee satisfaction needed to deliver a responsive and efficient service.

Thankfully, the determination is there to change this. And one of the ways this is happening is through the adoption of low code.

Developers and system engineers will already know what low code is. Essentially, it's a platform as a service (PaaS) and, as the name suggests, requires minimal coding. With a user-friendly interface, you can simply 'drag and drop' the controls required; it's a toolset that allows in-house teams to build applications and integrate existing systems.

In this article, I will explore how low code is being used in social housing as well as discussing how we can all collectively use this open source tool to improve services and drive efficiencies.

Compliance and solving the risk problem

Recent high-profile events have revealed that many housing providers don't have 'the big picture' of their risk position, and as a result of new regulations, many are also struggling to be compliant. The problem is that the data needed to assess their risk position, and to report the status of health and safety and other compliance issues, is often spread across different systems, leading to data silos.

Working with technology suppliers to integrate legacy systems and create applications that solve this problem is difficult. Many of the larger IT companies don't have the flexibility (or desire) to provide open APIs to integrate systems with public cloud platforms, and the cost of working with external companies to develop new solutions can be prohibitive.

There's also the risk that bespoke solutions will quickly become ineffective if they can't flex with regulatory change, adding to legacy headaches. What IT and digital teams need is the ability to develop cost-effective solutions in-house that can join up the data and their legacy systems.

That's what housing provider Optivo has built to monitor its health and safety risk. Working collaboratively with Optivo's in-house team, Rapid IS helped Optivo develop a low-code health and safety dashboard that provides a real-time view of its risk position and outstanding actions, pulling in data from different IT systems. Low code provides all the controls it requires, including a security layer with

single sign-on and Active Directory integration where only authorised parties can perform more sensitive tasks.

Deliver a better service

Optivo's health and safety dashboard isn't only a tool for monitoring risk and ticking compliance boxes. It also provides a far more responsive and joined-up approach to managing workflows and ensuring employees and contractors have all the information they need to deliver good customer service.

We've also helped the London Borough of Camden achieve this with a repairs call centre solution. Real-time integration of housing management, document management, asset management and appointments, contractors and repairs information ensures that calls are short and the repairs are right first-time. It delivers a singular customer view, with all relevant contact information, property details (including asset specifications and documents), repairs history and any contextual information in one place.

Simple solutions like this not only extend the life of legacy systems but also drive efficiencies, increase productivity and improve the service provided to residents.

Rapid prototyping & deployment

As well as the benefits mentioned above, low code also empowers teams to innovate continuously, providing an agile platform that can keep up with change and disruption and, crucially, deploy solutions very fast.

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How low can you go?

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In-house teams often already have the skillset needed to use low code effectively, and if not, it's easy to upskill staff with a small investment in training. That facilitates the rapid deployment of prototyping and testing, pilots can also be rolled out quickly and changes made in just a few days or weeks – all much quicker than normal R&D timescales.

Collaborate and empower with open source

As an open-source tool, low code is ripe for collaboration and I think there's a great opportunity to work together to modernise and drive change in the housing sector. Low-code suppliers, developers and in-house teams could be sharing their experiences across the housing sector and developing solutions that make everyone better landlords.

Rapid IS and other low code suppliers don't charge a licence fee; instead, users

pay for the PaaS and retain the IP of the applications they develop, so there's nothing to prevent collaboration or even 'white-label' solutions. Even though legacy systems will vary between different housing providers, low-code applications can integrate these different systems and solve problems everyone shares using this open-source tool.

Morale & staff retention

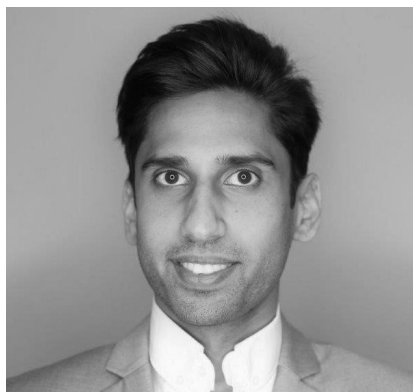
I don't think it's an exaggeration to claim that low code can have a positive impact on morale and staff retention as well. By giving in-house teams the controls to make a real difference to the organisation, they can get involved in rewarding work and see projects through from end-to-end. It can also have a positive impact on IT's reputation within the organisation; instead of being reactive to problems, IT teams can deliver solutions that make their colleagues' jobs easier and improve the services they deliver.

Upskilling staff with low-code training also addresses a significant recruitment challenge. Competition with the private sector for experienced developers and coders is often too hot for a housing provider. But if you can upskill existing staff and recruit people who can be turned into low-code developers, it can address a skills gap without wiping out IT budgets.

Looking ahead, I would like to encourage more inter-organisational collaboration between IT and digital teams that are using low code in the housing sector.

If you would like to join the low-code revolution, please get in touch!

Gareth Edwards is the managing director of Rapid Information Systems.



Mitigating business disruption events

Shalen Sehgal, Managing Director, Crises Control

The social housing sector is at significant and growing risk of disruptive incidents that can affect housing providers and their tenants. The fallout from the Grenfell Tower fire has rightly heightened all housing providers' sensitivity to their duty of care towards tenants when a potentially life-threatening disaster strikes; even a lift breakdown in a tower block now takes on a greater sense of urgency.

At the same time, the publicity surrounding the implementation of GDPR and the increasing regularity of cyber breaches have raised the bar on taking adequate measures to protect the sensitive personal data of tenants.

On top of all this comes the growing vulnerability of all organisations to unplanned IT and telecoms outages, given their increasing dependency on cloud-based services for data storage, enterprise software and telecommunications, as well as increasingly unpredictable weather events, energy-supply, uncertainty around Brexit and the remote but real threat of terrorist attacks.

According to the Business Continuity Institute Horizon Scan 2018, the top three business disruption events during the previous 12 months were unplanned IT

and telecoms outages, adverse weather events and interruptions to utility supplies.

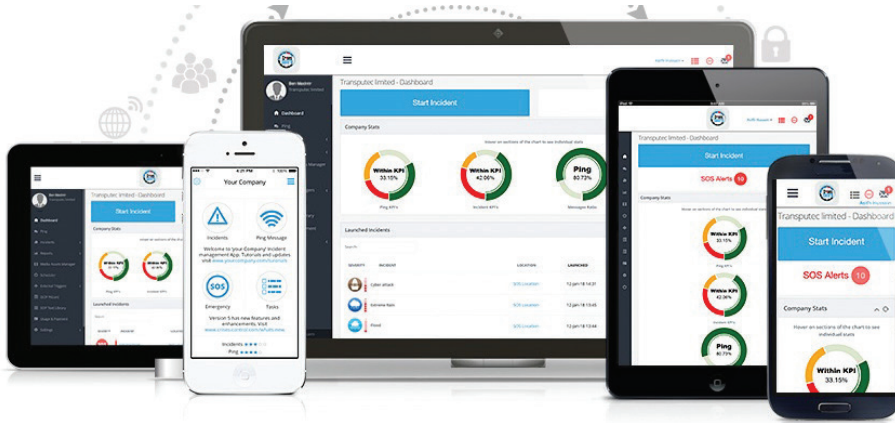
The impact of these disruptive events can vary widely, from the failure to comply with data protection laws to a breakdown in customer services or utility supplies to residents, or even injury and death, all of which can have financial, reputational and moral consequences.

What steps can be taken to mitigate business disruption events?

1. Review your risk register to make sure that it covers all of your possible threats. Many risk registers are only based on what has happened in the past, leaving you vulnerable to more unpredictable events. The BCI Horizon Scan (mentioned above) provides current information on the top threats and disruption events.

Mitigating business disruption events

Continued from previous page



2. For CTOs and CIOs, the top risks will be unplanned power outages and data breaches, but also consider more unpredictable events that could affect your data storage facilities, such as a small fire in the same building as your server room, which may lead to water damage to your servers from sprinklers.
3. Make sure that you have a business continuity (BC) plan which is fit for purpose. The local authority and social housing sector is ahead of many other sectors in having BC plans in place across the board because of the requirements that the Civil Contingencies Act imposes on them. However, this can mean that the process is in danger of becoming a tick box exercise.
4. Ensure that your plan is fit for use during the panic that will probably happen when an event strikes by creating a series of shorter action plans to fit each of your major threat scenarios. These actions should include specific tasks for specific individuals, such as taking responsibility for locking-down access to data until a suspected cyber breach is resolved and informing residents and the regulator if necessary.
5. Make sure that your action plans will be available to you under all circumstances. Having a well-written plan is no use to you if you can't access it in an emergency because your on-premise IT infrastructure has been taken out by the same flood, fire or power failure.

6. Consider the benefits of a cloud-based, multi-channel communications platform; an emergency communications platform is essential to successful incident management, but it's only useful if it is always available.
7. Make sure that you have a testing and exercising programme in place. This should include a mix of virtual, desktop and live tests and exercises. Having a testing programme in place is standard BC good practice for everyone and greatly increases the chances of an effective incident response. And for local authority providers, who are 'category one' responders under the Civil Contingencies Act, a regular testing programme is an emergency planning requirement.

Consider these steps and you will be much better prepared to handle a business disruption event and return to business as usual as quickly as possible.

Remember that the only thing harder than planning for an emergency is explaining why you didn't if that day comes.

Shalen Sehgal is the managing director of Crises Control.



Testing – A route to stress or success?

David Loudon, Managing Director, DtL Creative, and also Head of IT, Alliance Homes Group

Why is it some people find testing software so difficult and stressful? In this article, I will look at not only some areas of best practice but also the pitfalls.

Testing software implementations is a big thing! It's important to get that out

of the way. Too many times companies implementing new software treat it with a rather flippant and nonchalant attitude. It's a big thing and deserves a great deal of focus and attention if you want to make your new software a success.

For now, let's start at the beginning. At some point, you have bought a system and you will have a contract and set of

project documentation that states what you have bought and what its intentions are. Contracts, solution design documents and project initiation documents should all form the base of what you will eventually test. When you look at testing, you should always reference back to these. You are

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Testing – A route to stress or success?

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accepting what it is you have bought and agreed to. This is acceptance testing and is critical to the end-users accepting the system. However, it isn't the only form of testing.

When you contracted with the supplier, you are expecting the software to carry out a purpose. If you sign-off a testing programme and have not referenced this, then you may have little recourse to say it doesn't work after go-live. The supplier can easily say 'but you signed off the testing.' Use the contract and the project documentation as a reference point and after testing, it can not only be your testing that is focused but it can also be used as a measurement of success. This is functional testing.

So, what is testing in reality? A common thought is that it's all about user acceptance testing. It's not.

One of the most basic forms of testing is unit testing. In a nutshell, it is functional testing at the software level and is typically done by developers. You may touch on this if you are building a system yourself but let's hope you are not, and you trust the supplier to have done this.

I mentioned functional testing above, and this is very important to get right. Functions are tested by feeding them inputs or data and checking that the output is what you expect. As I said, it is where you reference design documents and the likes of specifications or more importantly contracts. Have you ever heard of the phrase "but that's not what we wanted"? Exactly, so that's why functional testing is one area to get absolutely right.

Integration testing... we certainly know that one of the most important areas in housing management systems is how they integrate and work with finance, repairs, asset management and many more systems. Integration testing is an aspect of testing in which individual standalone modules or other systems are tested as a group. The important thing about integration testing is that it leads naturally into systems testing.

Systems testing is another area that causes some stress in organisations. There is a good reason for this. It is usually done before thinking about the above integration testing. System testing naturally takes as a starting point all of the integrated components that

have just been tested in relation to the integrations. System testing is performed on the entire system in the context of your specifications. See, it all comes back to the beginning.

A final concept in relation to systems testing is that, in my opinion, it's the area that binds it all together.

The areas above certainly contain some jargon, but it's really important to understand how it all fits together. If your project is deemed as mission critical to the business (and why would you do it if it wasn't?), then it deserves a good understanding of the areas above. Consider the following:

- Does the system grind to a halt when you run a massive report or print job?
- Does it crash when you stretch its resources?
- Does it work effectively on the infrastructure you have provided it with?
- When you input something, do you get the expected outputs?
- Is it sluggish and/or will it frustrate end-users?

All of this brings me back to what most of you will be more used to and that's user acceptance testing. UAT is what gets all the attention, and rightly so. In fact, if done properly, UAT can actually part-educate users on the depths of the system that you don't perhaps see in training.

UAT is simply the last stage in your software testing process. During UAT, actual users who will end up using the software will have to look at real-life scenarios, according to not only what the software is expected to do from a specification perspective but also how they would go about their jobs. And let's face it, if your users aren't happy then it won't be adopted by them and that leads to all sorts of woes.

Here's a handy hint – well before you get to UAT, get users to do something like record everything they do on a daily, weekly or monthly basis on post-it notes as they go along. If you suddenly surprise users by asking them to all develop a testing script of their typical activities and actions, they will panic and you won't capture everything, so do it as you go.

And before I forget, give yourself lots and lots of time to do all of your testing.

Now, what shouldn't you do? I have listed five classic mistakes:

1. Don't underestimate the importance of testing. Lack of planning is a classic mistake and so is not providing enough resources. Think of testing from the start of your project; a mistake some people make is to leave testing too late, so plan early.
2. Never assume that the supplier will test. That's akin to buying a television and then getting the manufacturer to come into your house and tell you which programmes to watch to see if the television works – madness!
3. Involve as many users as you need to during UAT; in general, the more the merrier.
4. This might seem silly, but plan for rooms, plan for PCs, plan for mobile devices to be tested, plan for the infrastructure to be ready.
5. Be creative: have events, hype it up and make it big!

David Loudon is the owner and managing director of DtL Creative. He is also the head of IT for Alliance Homes.



Robotic process automation in housing

Vantage's operations director, Rob Bryan, reports on the company's recent strategic repairs and maintenance directors' forum covering artificial intelligence and robotic process automation, hosted by David Bolton, director of property services at Yorkshire Housing.

Housing providers are increasingly looking at artificial intelligence to streamline processes and reduce costs, with robotic process automation evolving as the new 'go-to' tool to improve customer experience and unlock staff time.



What is robotic process automation?

Robotic process automation (RPA) is where you automate business tasks using software 'robots' that imitate the operations and processes traditionally performed by people. It's particularly suited to high-volume activities that don't require human decision-making or qualitative appraisal-thinking. The robots mimic the tasks completed by humans using existing systems and applications in your organisation. They have the ability to interpret, trigger responses and communicate with systems.

RPA in housing

The group heard how RPA is ideally suited to the housing sector, particularly in areas such as asset management, finance, HR and contact centres. The advice was to

start by identifying well-defined, simple, high-volume, repeatable processes for automation. For example, accounts reconciliation, payroll and accounts payable are all tasks that easily lend themselves to RPA.

The robot can take an invoice that is emailed to you, open the email, open the attachment, scan the invoice document for key information, add that to your finance system, cross reference it with purchase-order numbers and process it for payment. Similarly, within asset management, the possibilities for RPA include data entry, reporting and management information, and inventory management.

Russell Thompson, executive director of property services, Thirteen Group, said, "Like many housing providers, Thirteen is constantly looking at ways of improving customer experience, value for money and our customer offer. The use of AI and RPA will provide a new approach that can provide efficiency and savings in everyday tasks, freeing up our staff to concentrate on the overall customer experience.

"We are already considering the use of RPA within our property management functions, such as asset management, facilities management, repairs, servicing and maintenance. The associated benefits are efficiency and consistency of our approach, realigning our staff resources to improving our customer experience, data analytics and trends to help predict breakdowns and repair cycles, and therefore moving to a proactive approach."

The benefits of RPA

As you would expect, automation offers many benefits, but it's not just about operational efficiency. It also helps contribute to a happier workforce that is focused on higher value tasks that are not only more satisfying but also add more value to your organisation.

The benefits of an RPA strategy include improved accuracy, reduced data-entry and process errors and much shorter

processing times. The automation process can run 24/7 and contribute to improved staff motivation because there is less time spent on boring, repetitive tasks.



David Bolton, property services director, Yorkshire Housing, said, "As the housing sector continues on its journey of transformation and innovation, technologies such as AI and RPA will become even more central to how we operate as businesses and provide services to our customers."

Preparing for RPA

As with any business change, it is vital to prepare and review your existing processes before introducing new technology; many digital projects fail to reap their intended benefits due to poor planning.

Housing providers must have the right implementation strategy in order to see the benefits of RPA. As with any important project, the key to success lies in aligning your transformation plan with your business goals, linking up to your strategic plan and getting the buy-in from the teams involved.

With some clear thinking and redesigning of your processes where they have become overcomplicated, RPA is a great opportunity to improve your organisation's ways of working.

Rob Bryan is the operations director at Vantage.

Housing Technology 2019

In review

**HOUSING
TECHNOLOGY™**
2019 | CONFERENCE AND
EXECUTIVE FORUM

Housing Technology 2019 conference and executive forum took place on 6-7 March at the Oxford Belfry, with almost 500 guests, 40+ presentations, over 80 speakers, and 25+ sponsors and exhibitors, making Housing Technology 2019 our biggest and best event yet. Housing Technology 2020 will take place on 4-5 March 2020 at the Oxford Belfry; please see www.housing-technology.com/events/htc20.

"A thoroughly worthwhile and enjoyable experience."

OPTIVO



"Mind blowing!"

COASTLINE HOUSING



"The most relevant and informative conference when it comes to technology in housing – not to be missed!"

WELLINGBOROUGH HOMES

"A truly excellent conference – insightful, inspirational, valuable and well run."

STONEWATER



"The annual Housing Technology conference continues to dominate the housing sector for all things technology."

RHP



"Career stimulation like a double-shot latte."

GOOD ROBOTS



"Excellent event... I've been going for many years, and long may it continue."

HOUSING SOLUTIONS



"If you only attend one conference each year, make it Housing Technology – easily the best for keeping up-to-date with the latest IT trends in housing and beyond."

EQUITY HOUSING



"A fantastic opportunity to meet housing leaders who are delivering change and transformation."

ALYSIUM CONSULTING





"Totally exceeded my expectations – a great conference with fantastic presentations."

SOVEREIGN BUSINESS
INTEGRATION GROUP



"The overwhelming feeling was that everyone enjoyed and gained a lot from it, and extremely well-organised too!"

PLYMOUTH COMMUNITY
HOMES

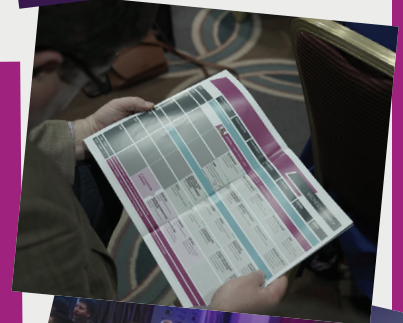
"Very enjoyable – the presentations really brought to life the 'art of the possible'."

GREAT PLACES
HOUSING



"Another fantastic conference – the focused opportunities to share ideas and learn from others can't be missed!"

ST LEGER HOMES



"Mind-bendingly good – keep up the incredible work!"

HITACHI SOLUTIONS



"Inspiring, eye opening and reassuring."

MIDLAND HEART



"Housing Technology enabled us to meet 'unattainable' contacts, and in comparison with other events, the culture created by the organisers really stands out."

CIVICA

"Having attended every year since its inception, Housing Technology is an essential conference to attend."

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HOUSING TECHNOLOGY 2020 WILL TAKE PLACE ON 4-5 MARCH 2020 AT THE OXFORD BELFRY; please see www.housing-technology.com/events/htc20 for outline details.



Design thinking... Methodical problem-solving for people-centric businesses

Armin Talić, Commercial Director, Komodo Digital

According to a recent Department for Business, Innovation and Skills report, every £1 invested in design leads to an average return on investment of £25.

Design thinking

When asked to describe 'design' as a process or an outcome, most people would focus on the visual deliverables of a traditionally 'visual' exercise, but design as a discipline starts well before something ends up being illuminated by pixels on your screen.

'Design thinking' is a methodology that provides a solution-based approach to solving complex problems. It's important to note that this is an iterative, non-linear methodology, so you don't strictly follow each phase one after the other, nor does it have an absolute end. Each step of the process can be thought of as a mode of thinking, with the outcomes determined by the objectives of that particular mode. (e.g. after prototyping, you can move 'back' to ideation if you've learnt things you'd like to form more clearly as a new/revised idea).

Although there are six phases in the micro-cycle of this methodology, it's often condensed down into five more distinct outcomes; these are empathy, definition, ideation, prototyping and testing.

Design thinking is a formal innovation process used by many leading organisations such as P&G, Mayo Clinic, Bayer and others. You won't learn design thinking from reading a single article but you might learn enough from this one to be able to start championing the idea to your team and leadership.

Put yourself in their shoes

How many organisations would readily admit to not knowing or accurately understanding their customers? When was the last time you created or revised your user personas and journey maps? Do you

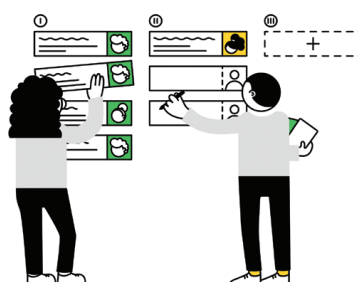


even have these two types of documents to reference?

Unsurprisingly, at the centre of a human-centred design methodology is the human element. To understand customers, tenants, residents or any other nomenclature you choose to assign to users, you first need to build empathy with them. Not just an arbitrary feeling of "I know what you mean" but an actual emotive connection to their needs, wants and frustrations.

There are a number of tools for building empathy with users, but you'll often find four repeatedly adopted: shadowing, journey maps, interviews and personas.

Shadowing is a good way to get first-hand information by witnessing a day-in-the-life of a user, while journey maps help you to visualise and communicate this as a path that ebbs and flows. User interviews allow you to gain in-depth knowledge from real or potential users while helping to build a distinct set of personas to represent core user types. By generating multiple personas, it allows teams to make better decisions based on a set of defined goals and motivations.



Define problems, not outcomes

There's an old Russian proverb that roughly translates as "measure twice, cut once." It's obvious that in a discipline like carpentry, you should double-check your measurements for accuracy before cutting a piece of wood, otherwise you'll probably need to cut again, wasting time and materials.

I read a number of project briefs every week where it's very easy to spot those who have defined the 'effect' as the problem, without clearly communicating their understanding of the real problem, the 'cause'. You might be trying to tackle high call volumes, but why do people resort to calling you? You could be struggling with tenants in arrears, but why are they behind on payments?

Before trying to dictate the deliverables for what you think are the problems you're trying to solve, you need to be sure that you've clearly defined them and that they're the actual problem you need to tackle.

Taiichi Ohno, a former executive vice-president of Toyota, pioneered a simple yet powerful method called the 'five whys' to help identify the root cause of problems in an effort to improve Toyota's processes. By continually asking 'why?', it helps to peel away the encasing symptoms to determine the problem.

An example of the 'five whys' by Toyota's Taiichi Ohno:

1. Why did the robot stop? The circuit has overloaded, causing a fuse to blow.
2. Why is the circuit overloaded? There was insufficient lubrication on the bearings, so they seized up.
3. Why was there insufficient lubrication on the bearings? The oil pump on the robot is not circulating enough oil.
4. Why is the pump not circulating enough oil? The pump intake is clogged with metal shavings.
5. Why is the intake clogged with metal shavings? Because there is no filter on the pump.

Design thinking... Methodical problem-solving for people-centric businesses

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Without using the 'five whys' in the example above, a business might have only replaced the fuse rather than finding and resolving the root cause.



Move fast and make things

Most organisations I talk to say they want rapid innovation and agile delivery, but they're not always prepared for what that actually looks like.

The path to success is rarely a straight line, so why would it be any different for a complex problem? How many ideas have been generated before settling on a number of prototypes? Has the business even considered rapid, disposable prototyping as part of their project path?

Once you have a clear understanding of your users, a defined set of problem statements and "how might we?" questions, you can begin to experiment.

Ideation and prototyping are key parts of the transformation journey. Involving users (internal and external) throughout this process ensures that the outcomes remain centred around their needs, hence creating a human-centric deliverable. Facilitated workshops where users contribute to ideas and even produce paper prototypes is an exercise every organisation should do.



It should be no surprise that applying design thinking to digital experiences leads to products and services so good that people prefer to use them.

Nothing changes if nothing changes

If you see value in advocating for a design-thinking mindset, there are a number of high-quality, free resources online to help you get to grips with the fundamentals. It takes organisational openness and agility to adapt to fundamental changes in the way people think about and work to solve problems.



Having worked with organisations taking steps to innovate and transform their product and service offerings, we found some common gaps in experience and capability, and combined with years of our own insight and client input, we have produced an open-source UX toolkit intended to help teams deliver design discovery in-house.

The starter kit provides the foundations for a collaborative innovation project where ideas and decisions can be made as a group. We're providing a limited run of these kits free to readers of Housing Technology. If you'd like one for your team, please email hello@komododigital.co.uk referencing 'Housing Technology magazine'.

Armin Talić is the commercial director of Komodo Digital.

Newport City Homes moves to Cadcorp's cloud-hosted mapping

Newport City Homes has migrated its on-premise Cadcorp mapping software to the company's new cloud-based hosted service.

Newport City Homes first started using Cadcorp mapping technology in 2010, installed and hosted on its own local infrastructure and managed by the housing provider's in-house staff. Following Cadcorp's announcement of a cloud migration path, Newport City

Homes realised that cloud-based hosting of the Cadcorp software would solve its problem of trying to manage its web mapping operations without a dedicated GIS manager.

Jamie Roberts, asset data co-ordinator, Newport City Homes, said, "We've already made significant savings from using Cadcorp's web mapping software but we found that without dedicated internal resources, we couldn't keep it up-to-date. When we found out that Cadcorp could cost-effectively manage our web mapping in the cloud on our behalf, we were keen to go ahead. It's like

having your own onsite web-mapping administrator."

Using Cadcorp's cloud migration path, Newport City Homes' existing software licences were moved from on-premise systems to a cloud hosted and managed environment within a UK-based Microsoft Azure data centre. Cadcorp continues to manage the software and Ordnance Survey updates on the housing provider's behalf, with a workflow created to enable Newport City Homes to automatically update data from its internal asset and housing management systems.



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