



**Assistive
technology**

Homes and wellbeing promise 2022 - 2027

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Vision statement

NCHA will utilise the Internet of Things (IoT) as a primary technology eco-system to understand emerging issues and requirements to proactively meet the needs of customers. This will be a corporate approach and IoT is a progressing and maturing technology which will require significant discovery to understand how this can meet the needs of NCHA customers and services users.

NCHA will develop a proactive approach to assistive technology, unlocking new capabilities and opportunities to ensure that we remain alive to the changing social and technological environments, attracting new partnerships and strengthening our existing partnerships.

This will comprise of two strategic priorities:-

Our customer, their home

NCHA will support customers to reduce energy bills and carbon emissions, lessen the impact of fuel poverty, and fundamentally improve living conditions to create more sustainable and habitable homes. Furthermore, we will understand the detailed performance of our assets by leveraging sensor technology. The data and information that we collect should be utilised by NCHA colleagues to deliver proactive services. This must be informed by NCHA's sustainability strategy and so it is proposed that the introduction and development of IoT in this area is led by NCHA's Sustainability Manager to drive accountability and consistency.

Connections that matter

Developing our existing experience in the market, we will develop our assistive technology offer to deliver more proactive and tailored solutions to keep people safe and allow guaranteed access to support. This will consist of us developing our existing offer to leverage emerging opportunities and develop our existing and new partnerships. We will pilot solutions to meet different client group needs and then adopt a capital investment programme when we have determined the benefits to our customers.

We will have a comprehensive suite of capabilities that enable us to truly understand our customers and service users and be operationally poised to deliver effective outcomes for those that need us. NCHA recognises that this is dependent on being able to address the big challenges highlighted below. This will be delivered via Customer Wellbeing in line with its new strategy and a delivery plan is already established to make significant progress.

The BIG challenges

- **Data privacy and trust**

Whilst there are significant opportunities to improve customer lives in the use of technology, according to a HQN report published in June 2021, 84% of social housing residents are discouraged from using it due to concerns over data privacy. Therefore, NCHA will carefully assess the data and privacy impacts and develop a plan to communicate transparently with customers in demonstrating the value that this technology produces in terms of living a better life.

This challenge will be overcome by NCHA's Data Protection Officer.

- **Connectivity**

Successful adoption of IoT will depend on a reliable data connection to ensure that the data that is captured can be reported back to NCHA for analysis and action. NCHA has secured a £100k investment in addressing digital exclusion and so this strategy should correlate to that activity to maximise the potential customer base that can benefit from IoT.

This challenge will be overcome with the support of Hive Innovation colleagues and their subsequent solutions in addressing this challenge.

- **Organisational approach**

NCHA recognises that in order to maximise the value of this data, it will require significant support from Property Services in identifying and proactively engaging our customers and properties to mitigate a reactive approach to repairs. Furthermore, there are a number of initiatives that may be introduced as a consequence of this strategy, or of others. Therefore, it is

essential that NCHA is organisationally approaching this strategy to avoid any competing initiatives or conflicts in the direction of IoT.

This challenge will be overcome by the Head of Customer Experience.

- **Early adoption**

NCHA recognises that this technology inherently carries risk and opportunity. The fact that this technology is still evolving and not well-established within the sector will enable us to follow early-adopters and position ourselves within the segment of 'early majority' to enable us to learn from other landlords' challenges in adopting this technology.

This challenge will be overcome by the Head of Customer Experience.

- **Cost v benefit**

NCHA recognises that VFM is a leading factor in our investment appetite and so prior to any formal investment or procurements being undertaken, a comprehensive business case will be developed to understand the return on investment (ROI) which is likely to be by making broad cost-savings via operational efficiencies as services become less reactive, and by improving the communication between customers and NCHA to support sustainable tenancies.

This challenge will be jointly overcome by Business Development and the Head of Customer Experience.

Where are we now?

Internal analysis:

- Our Care and Support Alarm Monitoring technology is circa 20 years old and has not benefited from significant investment for a number of years. The Digital Switchover Project has decided to safeguard this technology in the short-term by adapting it to be digitally compatible with a view to a longer-term capital investment which will be derived from the ambitions of the IoT strategy.
- We are not proactive enough in marketing our existing solutions or introducing new capability to drive additional revenue.
- NCHA's Sustainability Manager has led the deployment of some IoT devices: 7 x new homes (Parklands Grove) have been fitted with AICO temp/humidity sensors, with the aim of trialing the equipment and understanding the real thermal performance of these new homes.
- There has been no clear ownership of responsibility and accountability in these areas because of the multiple touchpoints in this technology.

External analysis:

- According to Inside Housing, 11 million people in the UK do not have access to the internet and one in three of those people live in Social Housing.
- According to HQN, as of 2021, 2.4 million UK households cannot afford to heat their homes. There is strong evidence that fuel poverty contributes to some of the 30,000 excess winter deaths every year, caused by inadequate heating, condensation, dampness and mould. This position is set to worsen with the increase in fuel costs due to geo-political pressures.
- By 2019, only 20% of Social Landlords had implemented an IoT solution in more than 100 homes.
- Expected changes in the regulatory environment is expected to drive IoT uptake to improve safety and customer experience. The Building Safety Bill is likely to mandate that each organisation has a 'chosen person' who bears responsibility for 'the golden thread' of asset information, necessitating better digital records of buildings. Furthermore, those trying to get ahead by adopting further digital infrastructure will be influenced by the recommendations made by The Hackitt Review for ensuring building safety.
- In terms of assistive technology in care and support environments, market leaders, e.g. Tunstall, are still adjusting to the demands of the digital switchover and pivoting their business to move away from analogue to digital – offering enhanced capabilities.

Key objectives

Identify and develop partnerships with leaders within the sector

1. Understand effective use-cases and consider viability for use within NCHA.
 - a. Sustainability Manager to review progress made by peers in sector.
 - b. Collate research and present findings to a working group for consideration.
2. Understand and analyse the outline costs and benefits associated with the deployment of scoped technology and devices.
3. Develop a view of the homes, schemes and customers that we should target based on risk and vulnerability to pilot new initiatives.

This will be led by NCHA's Sustainability Manager for IoT and Customer Wellbeing Manager for AT who will collaborate with colleagues via a working group.

Test and Learn

4. After identifying vulnerable customers and properties, we will establish the best technologies to support them.
5. We will consult customers (via scrutiny panels) to understand if they would benefit from the type of technology we intend to pilot.
6. We will identify specific use-cases for IoT (e.g. temperature, humidity and CO2 sensors that are placed throughout homes to provide insight on mould risk, causation, ventilation, indoor air quality, thermal performance, fuel poverty, void detection and carbon footprint);

7. We will identify specific use-cases for AT (e.g. alarms and sensors in the detection of care needs)
8. We will secure initial seed funding or investment to deliver new technologies to our customers and service users. (e.g. Social Decarbonisation Fund).
9. We will monitor the impact after designing a range of measures of success, this has on our customers and/or properties.
10. We will conduct a benefit analysis after a period of time to prove concept.

This will be led by NCHA's Sustainability Manager for IoT and Customer Wellbeing Manager for AT who will collaborate with colleagues via a working group.

Embed

11. After establishing proof of concept, we will establish how best to long-term fund this technology at scale.
12. We will establish a process for identifying qualifying customers, properties and service users for deployment.
13. We will collaborate with key departments to ensure that the data is being used to better lives and establish a suite of success measures.

This will be led by the Head of Customer Experience in consultation with key business stakeholders.

Delivering the plan

The key steps to delivering this strategy are outlined in the key objectives in section four. There are a number of principle dependencies to ensure the success of this strategy:

Our customer, their home

- This strategy must ensure that the right skills and competencies are available to it. Proposed leads have been identified in the key objectives.
- Colleagues must have time dedicated to delivering this strategy during the course of their other priorities.
- NCHA colleagues must be able to contribute to this strategy and not deliver local changes that are inconsistent with this strategy without consulting the group.
- NCHA must have an appetite to reorganise its service delivery strategies to maximise the value of IoT.
- When we understand the impact/benefit of this strategy, we must be able to reorganise our resources to act on the information.
- We must be able to demonstrate a value for money position in any spending commitments that we make.
- The benefits of this technology must be available to all tenure-types.

Connections that matter

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- When we understand the impact/benefit of this strategy, we must be able to reorganise our resources to act on the information.
- We must be able to demonstrate a value for money position in any spending commitments that we make.
- Assistive Technology is regulatory or compliantly approved (e.g. Care Commission/TSA).

Monitoring and reporting

- The Head of Customer Experience is accountable for the thematic plan and will work in close capacity with the Head of Homes and Wellbeing as a key stakeholder.
- The Head of Customer Experience and Head of Homes and Wellbeing will meet on a quarterly basis to review the progress made against the delivery plan.
- Objective and challenge leads will report progress quarterly to the Head of Customer Experience in terms of time, cost, quality, scope, benefits and/or risk.
- Customers and colleagues will be informed on an annual basis in terms of progress and outcomes.



Glossary

IOT

Internet of Things technology is the practice of embedding physical objects in the home with sensors, software and other technologies that connect and share data in real time.

Our business delivery strategies

Being the best we can be for our customers and colleagues by always listening and striving to improve, in an environment that is supportive, inclusive and wellbeing focused.

Alongside the Group Corporate Plan sit three new '**Business Delivery Strategies**', which are relevant to all departments. These are:

- **Environmental Sustainability Strategy**
- **Social Impact Strategy**
- **Value for Money Strategy.**

The **Environmental Sustainability Strategy** sets out ambitious targets that will enable NCHA to reach net zero carbon emissions, improve natural environments and reduce fuel poverty for our customers.

The **Social Impact Strategy** commits NCHA to getting better at measuring the positive impact we have on people's lives, and then using what we learn to focus our money and time on the things that have the biggest impact.

The **Value for Money Strategy** is arranged around three key concepts:

- Economy, which means buying things as cheaply as possible, which will mainly be achieved through improved corporate procurement practices and loan agreements.
- Efficiency, which means getting the most out of our resources, and
- Effectiveness, which means providing high quality services that meet people's needs and expectations.

Taken together, these new strategies provide us with the opportunity to pause and reflect on what we've been doing, and then to refocus on the future.

This plan sets out our ambition with using technology to enable better support of our customers.