

Open Source and Social Care

Hackney Council's experience
delivering Open Source Tech
for Adults' Social Care

A bit about us..



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Contents

In this webinar we will be looking at the London Borough of Hackney's experience, learnings and achievements developing Open Source Adults' Social Care products.

Agenda

1. Open source as a tool for change
2. Turning a cyber crisis into an opportunity
3. Story of Modern Tools for Social Care
4. Reflections

Questions



1. Open source as a tool for change

Moves to the cloud and modern digital approaches can open big opportunities

But... **1990s / 2000s tech & architecture** continues to be all too common & hard to shift

Suppliers are very good at lock-in

How can you strengthen your levers to take more control over your strategic opportunities and costs?

Fighting back
against supplier
capture requires
**deliberate action
and commitment**

There is no
'collective buying
power' if everyone
keeps buying the
same things

Open source as part of our strategic approach

Guidance

The Technology Code of Practice

The Technology Code of Practice is a set of criteria to help government design, build and buy technology.

From: [Government Digital Service](#) and [Central Digital and Data Office](#)

Published 14 July 2021

Last updated 7 July 2025 — [See all updates](#)

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Related content

Collection

[Cloud technology and the public sector](#)

01

Procure modern software, designed for the cloud, or if not available...

02

Build modern open source software, hosted in the cloud, or if not viable...

03

Operate legacy applications on modern cloud or vendor hosting, and then...

04

Retire legacy applications & infrastructure

2. Turning a cyber crisis into an opportunity

Use cyber
as a lever
for change

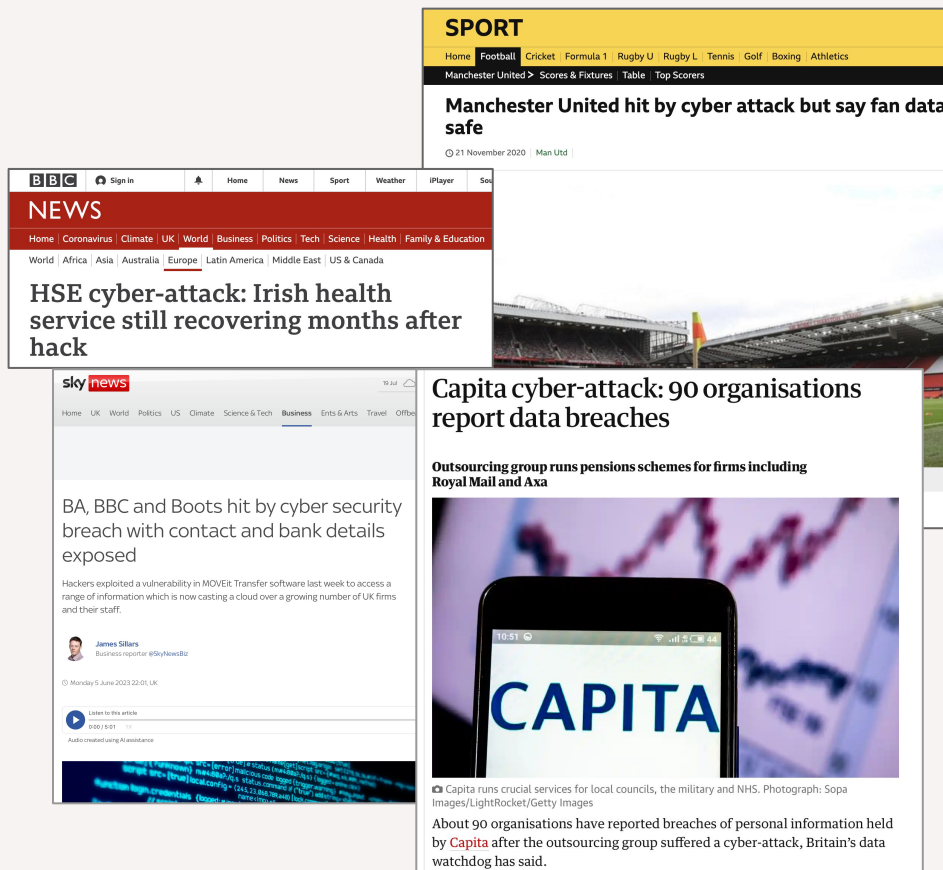
Cyber threats are
continuing to grow

As well as significant
risk, this also presents
important opportunities
for your strategy

Plan for when, not if

The only 'safe' bet is to assume your controls won't work

Attackers don't care about the compliance certificates you've earned and they'll ruthlessly exploit any potential gaps that they're able to find in your defences.



How it began



The screenshot shows a BBC News article titled "London's Hackney Borough Council hit by hack attack". The article is dated 13 October 2020. It features a video player with a Hackney Borough Council logo and a menu icon. The video player shows a street scene with a sign that reads "Hackney Borough Council". Below the video player, the text reads: "Technical problems Due to technical problems, you may experience difficulty accessing online services, such as One Account and payments today. We're trying to fix this ASAP". The article continues: "London's Hackney Council says it has been hit by 'a serious cyber-attack' which is affecting its IT systems. Services may be 'unavailable' and people should only contact the council 'if absolutely necessary', it **tweeted**. Officials are working with the UK National Cyber Security Centre to investigate the hack. In February, another local authority - Redcar and Cleveland Borough Council - said it had been hit by a ransomware attack, which cost it more than £10m."

BBC Sign in Home News Sport Weather iPlayer

NEWS

Home Coronavirus Climate UK World Business Politics Tech Science Health Family & Education

Technology

London's Hackney Borough Council hit by hack attack

13 October 2020

Hackney Menu

Technical problems

Due to technical problems, you may experience difficulty accessing online services, such as One Account and payments today. We're trying to fix this ASAP

HACKNEY BOROUGH COUNCIL

Visitors to the council's website were greeted with this message

London's Hackney Council says it has been hit by "a serious cyber-attack" which is affecting its IT systems.

Services may be "unavailable" and people should only contact the council "if absolutely necessary", it **tweeted**.

Officials are working with the UK National Cyber Security Centre to investigate the hack.

In February, another local authority - Redcar and Cleveland Borough Council - said it had been hit by a ransomware attack, which cost it more than £10m.

At the start you will know this is a big thing.

But you probably won't realise quite how big right away.

There were
huge impacts
across the
Council

Services we had moved
to the cloud were
unaffected, but...

Legacy services were
unavailable

And we had no simple
path to recovery

A twin track approach to recovery

Emergency

Forensic analysis of the attack

Urgent continuity measures (capturing data in structured form)

Assessment of recovery options

Starting the recovery journey

Sustaining continuity measures

Recovering data

Developing recovery strategy

Business continuity, supported using Google Forms and spreadsheets

Both tracks were equally important

Track 1: rebuild Mosaic

User recovered data to rebuild Mosaic in the cloud (a ~ 2 year project)

Track 2: 'modern tools'

User recovered data to build modern, user-centred tools based on open source technology

3. Story of Modern Tools for Social Care

Our vision for the services

The future service, for adults

↔ Hackney

We believe that well designed technology for Adults Social Care can help to:



Reduce the administrative burden on all staff



Increase the ability of some people to self-manage (where appropriate)



Increase the amount of time for adults who are most in need



Enhance collaboration and coordination between partner organisations

The future service, for children

↔ Hackney

We believe that well designed technology for Children's Social Care can help to:



Reduce the administrative burden on all staff



Free up more time for social workers to spend with children

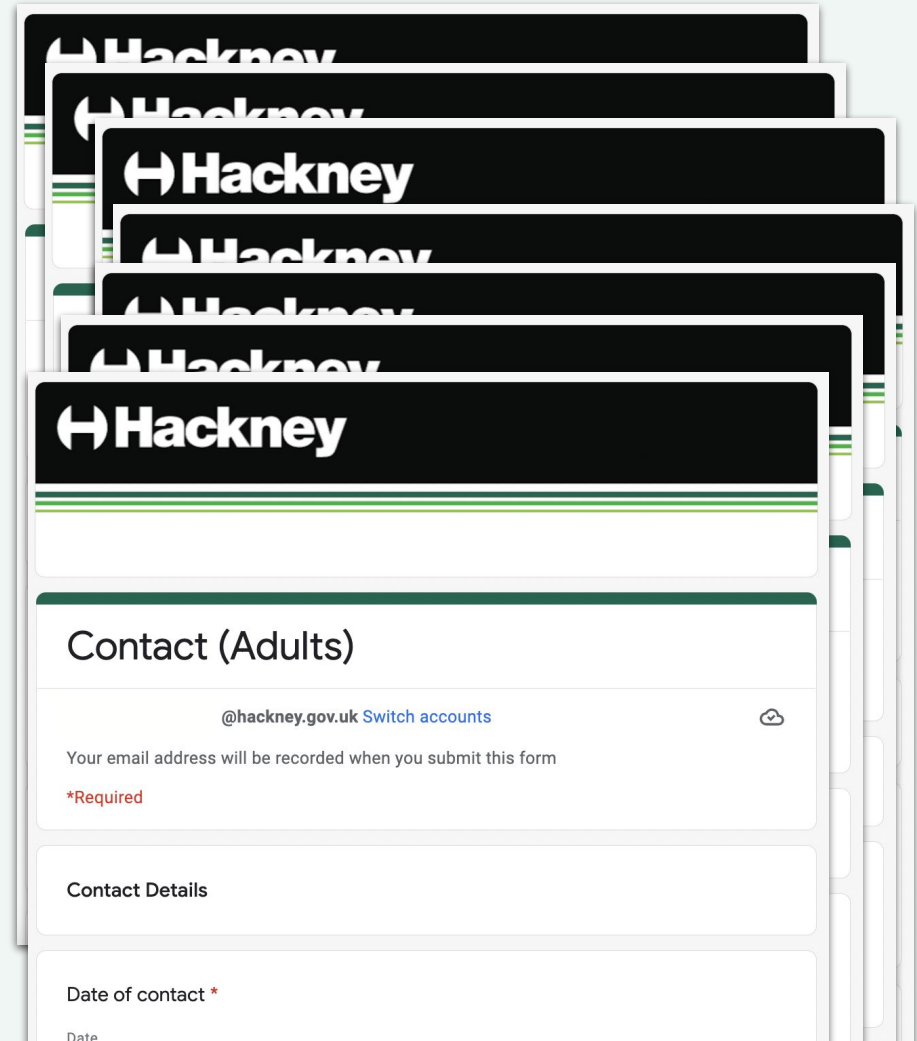


Increase the quality of relationships and trust between practitioners and families



Enhance collaboration and coordination between partner organisations

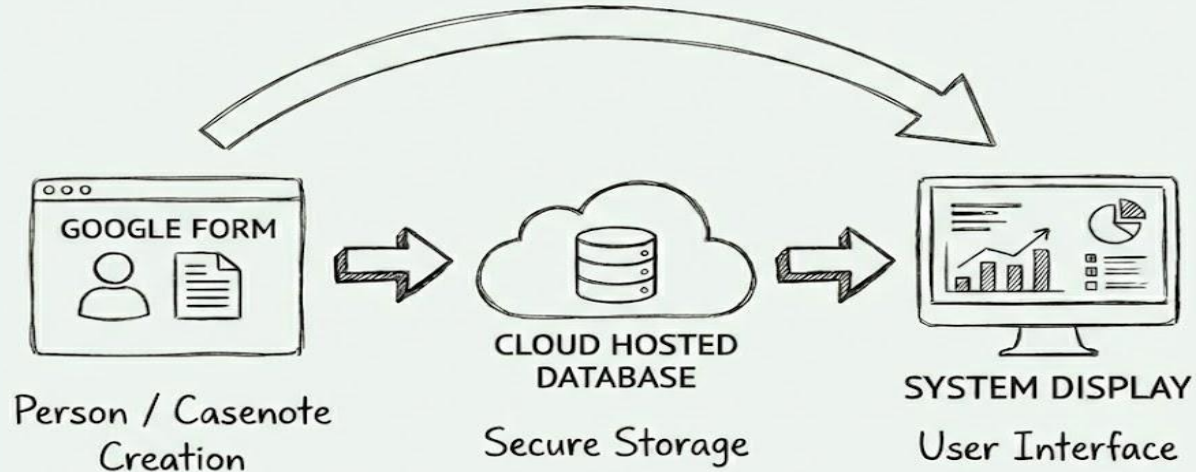
**From October to
January we
pulled together
a very basic
system very,
very quickly**



The image shows a stack of Hackney council contact forms. The top form is clearly visible and contains the following elements:

- Hackney** logo at the top.
- Contact (Adults)** section header.
- Twitter handle [@hackney.gov.uk](#) and a [Switch accounts](#) link.
- A note: "Your email address will be recorded when you submit this form".
- A red asterisk indicating a required field: ***Required**.
- Contact Details** section header.
- Date of contact *** label.
- A partially visible "Date" input field at the bottom.

What this system looked like under the bonnet



Why this was important that we built it in this way

- It was the quickest way to get the service back up and running
- Freedom from any vendor lock in, we would be able to integrate with anything that had open APIs
- We really were in the heart of cyber recovery so open source development was the most secure option

Some Complications...

- Rebuilding broken processes that were moulded to fit Mosaic rather than to fit the needs of residents had meant that we were constantly being compared to Mosaic.
- Lots of complicated Google forms had meant that the architecture could sometimes be quite unstable.
- Social Care itself was undergoing significant challenges, with rising demand, intense regulator scrutiny and huge financial challenges'

We were also recovering old case notes which was:

- Messy
- Hard
- A very big deal

1	Schema	Table Name	RowCount
2	dbo	EMAIL	239632699
3	dbo	DROP_FORM_ANSWERS	44469997
4	dbo	MO_AUDIT_EXTERNAL_SYS_MESSAGES	29507205
5	dbo	DM_CACHED_FORM_ANS	26847277
6	dbo	AUD_MO_FORM_ANSWER_ROWS	25729637
7	dbo	MO_AUDIT_ACTIONS	25561960
8	dbo	AUD_MO_FORM_SHORT_TEXT_ANSWERS	24045405
9	dbo	MO_FORM_SHORT_TEXT_ANSWERS	22224731
10	dbo	conversion_form_answers	21441613
11	dbo	AUD_MO_FORM_ANSWER_COLLECTIONS	16140382
12	dbo	AUD_MO_FORM_LONG_TEXT_ANSWERS	14027520
13	dbo	AUD_MO_WORKFLOW_STEPS	12218298
14	dbo	MO_SESSIONS	10714936
15	dbo	AUD_MO_FORM_LOOKUP_ANSWERS	10455237
16	dbo	MO_FORM_LOOKUP_ANSWERS	10005212
17	dbo	AUD_MO_FORMS	8533280
18	dbo	EXTERNAL_SYSTEM_MSGADT	7782365
19	dbo	AUD_MO_FORM_DATE_ANSWERS	5503769
20	dbo	DROP_FORM_ANSWERS_REPEATING	4716415
21	dbo	EVENT_PROPERTIES	4489371
22	dbo	MO_AUDIT_SEARCHES	4464347
23	dbo	M_90_FORMS_INIT_CONTACTS	3580846
24	dbo	AUD_MO_WORKFLOW_LINKS	3541777
25	dbo	CASE_NOTES	3519520
26	dbo	MO_FORM_ANSWER_ROWS	3228183
27	dbo	M_90_FORMS_BB	2846186
28	dbo	DM_FIN_PAYMENTS	2745709
29	dbo	PAYMENTS	2741303
30	dbo	DM_WORKFLOW_STEPS	2708000

We continued to build / recover until we had...

- Casenotes (native)
- Worker Allocations
- Relationships
- Search
- Edit a resident
- My work
- Manage workers

Hackney Social Care Dev

[Manage workers](#) [My work](#) [Workflows](#) [Teams](#) [Search](#) [Sign out](#)

SUPPORT Need help? Check out the [FAQ](#) or the [handbook](#). If you don't find the answer, contact [support](#)

[Go back](#)

Case note

[Delete record](#)

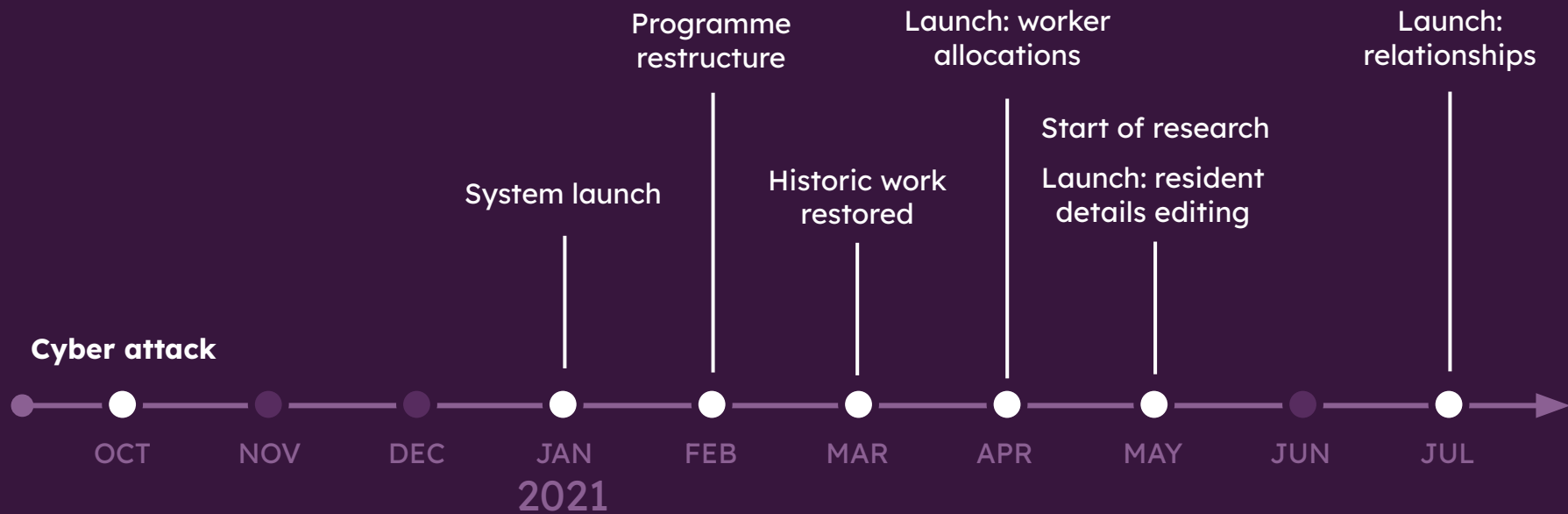
Type	Something else
Topics	Case audit Care charges
Title	Testing flexible answers
Body	This is where we describe what has happened.
Date of event	2022-05-09 10:00

This is for:

History

Edited by

@hackney.gov.uk



Children's & Families Services choosing to go with Mosaic

- October 2021 Children's and Families Services chose to commit to a single track - focusing on the Mosaic rebuild go. Adults' agreed that Children's should go first for Mosaic rebuild.
- Mosaic doesn't have modern restful APIs and at the time it wasn't feasible to integrate with our bespoke built solution.
- An additional complication for children who are transitioning to ASC. This proved difficult to deal with going forward.

Support 3C Form

- We continued to develop other forms using Google forms / our front end. Until the high volume Support 3C form...
- But this was too long for our system to ingest using the temporary infrastructure we had set up previously...
- It didn't work. This meant that we needed to change direction

Hackney Social Care **Dev** [Search](#) [Manage workers](#) [Sign out](#)

BETA This is a new service – your [feedback](#) will help us to improve it.

[Go back](#)

Review of Care and Support Plan (3C)

Submission incomplete
You've completed 0 of 17 sections.

This is for:

Spicy Dev
Born 10 Apr 1990
E1 8HW

1. About you

Person details	To do
Communication	To do
Primary support reason	To do
About me	To do

2. Key contacts

Key contact	To do
Key contact (second)	To do
Key contact (third)	To do

3. Health and wellbeing

GP details	To do
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Core Pathway

The broken process for the support 3C form resulted in stopping and recalibrating the programme. From this we then formed a new team called '**Core Pathway**'.

It's goal was to do digital transformation on all of the processes working directly with ASC

This team was made up of people in Digital but also people in ASC directly involved with the team, with the main aim of making each process streamlined and human centered.

Once we made this change we saw some real positive change in the service area.

What we did...

1

Exploratory interviews

To understand the current situation and uncover new ideas

2

Form audit

To compare Google forms, identifying what content was common or unique across forms

3

Coming up with ideas

Creating initial ideas and checking back in with team managers to see whether we were on the right track

4

Prototype testing

Showing what the tool *could* look like, and getting feedback on what would and wouldn't work

5

Improving the prototypes

Updating the ideas based on the feedback we heard

assessment, rapid
and FACE overview
carers / OT / me

Assessment ▾ Mental Capacity Asse <https://docs.google>

Support Plan ▼	<u>Carers Support Plan</u>	https://docs.google.com/document/d/18UW0tYDQFvTjzGKXZlR9BmEg6eHwLkx7/edit#heading=h.3qf3n3y3d3o
----------------	----------------------------	---

Review Qs for prototype ▾

12 Future: The megaform

ASC section audit ▼

Notes ▼

CFS section audit ▼

We managed to take a complex collection of Google forms

About the person being assessed

If not already known, prompted to enter; if already known, present

Title	First Name*	Last name*	Other Name
-------	-------------	------------	------------

About the person being assessed

Carer NHS Num	Carer: First nam	Carer: Last n
---------------	------------------	---------------

NHS Number	Title	First Name	Last name
------------	-------	------------	-----------

		First name	Last name
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NHS Number	Title:	First name:	Last name:
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NHS Number	Title:	First name:	Last name:
------------	--------	-------------	------------

NHS Number	Title	First name	Last name
------------	-------	------------	-----------

		Name
--	--	------

		First name	Last name
--	--	------------	-----------

About the person being assessed

Carer: First name Carer: Last name

SUPPORT Need help? Check out the [FAQ](#) or the [handbook](#). If you don't find the answer, contact [support](#)

My workspace

Planner

Social care

eg, 12345

Assigned to

☐ Me

☐ Another

☐ Another

☒ All

Types

☐ Include historic work
from before October
2021

And turn it into something beautiful

(the 'core pathway' - a streamlined and resident-friendly way to carry out social care assessments)

Waiting for approval (20)

Chandler Bing

Carer's assessment · Started 5 Oct 2021
Waiting 45 days

AR

Waiting for QAM (6)

Something else Test

Urgent · Care act assessment · Started 27 Sep 2021
Waiting 77 days

LG

Completed (67)

Joey Tribbiani

Care act assessment · Started 1 Oct 2021

Estrella Kidman

Initial contact assessment · Started 4 Mar 2022

Rachel Test

Sensory assessment · Review · Started May 2022

Rachel Test

Care act assessment · Reassessment · Started 3 May 2022

Rachel Test

Care act assessment · Started 25 Apr 2022

Urgent · Occupational therapy assessment · Reassessment · Started 21 Mar 2022
4% complete

AR

Joey Tribbiani

Urgent · Care act assessment · Review · Started 8 Apr 2022
0% complete

LD

Something else Test

Care act assessment · Reassessment · Started 23 Sep 2021

Codina Test

Carer's assessment · Reassessment · Started 27 Jan 2022
Waiting 59 days

RF

Rachel Green

Mental capacity assessment · Started 2 Feb 2022
Waiting 77 days

EB

Thomas Parsons (test)

Care act assessment · Started 11 Feb 2022
Waiting 82 days

EB

Joe Bellen (test)

Initial contact assessment · Started 21 Mar 2022
Waiting 49 days

AR

Our technology choices

Trunk based development

A Single Shared Branch: It's a version control strategy where every developer works on one main branch (the "trunk") rather than maintaining separate, long-lived feature branches.

Small, Frequent Commits: Instead of big "reveal" moments, developers push their code changes in tiny increments multiple times a day to keep the codebase moving.

The Result: Flexibility built into how we wanted to build our technology



Open Source

We knew that we faced an uphill battle in doing something this radical in social care. We needed the work to be open source, in case there is a need for it to be re-used in the future.

Alongside all of the other benefits



Pilot and Scale

Starting off small, and scaling. Unlike the work immediately post cyber attack we chose to start off with one team in ASC then scaling accordingly.

Getting people excited about what technology they were working on meant that the enthusiasm grew from social workers.

“What you’ve done has really helped residents and social workers . . . I think there’s something there, you should stay working on social care. There’s such a big opportunity, it’s so niche but it would be worth it continuing.”

— Performance manager

Brokerage and Finance

Back-office system

Take the needs of service users as identified in Core Pathway and match them to providers

Identify who needs paying and when (service users and providers)

Approach

Build better relationships with B&F team - take Product Owner from team

Align more closely with Core Pathway team and emerging design system

Build and launch based on validated needs and trust

MVP

January 2022 engaged to pick up existing MVP and launch

Transpired that trust in the new system was very low

Decision made to start again with rapid discovery, prototyping and build

Challenges

Highly complex calculations

Data had been widely dispersed

Runway was getting shorter and shorter

The end of the programme

Following senior leadership change in adults' social care a shift in focus to core practice took place.

The decision was therefore taken to stop further development in the 'modern tools' and focus on returning to a more familiar system.

But we still think that the work showed the way towards something important: **a viable path towards modern, user-centred and interoperable social care technology.**

**“We’ve never seen anything like this
– it could be a real disruptor in a
stagnant marketplace. There hasn’t
been any innovation here for a
very long time and this is really new
and promising.”**

— NHSX and the DHSC

4. Reflections

Reflection 1

Delivering change in an emergency is hard

In the months following the cyber attack, we worked on functionality for both services - ASC and CFS. Everything was urgent, and we were rapidly bringing out functionality, some of which wasn't fully ready or utilised.

It finally took the Support 3C Form to break, for us to take a step back and **start small**.

By starting with a small set of closely bought in users, developing prototypes quickly, and scaling to other teams when the product was ready, we were able to build momentum with our users and build with them in partnership.

Reflection 2

Working in Partnership

When the work began, the short term strategy was 'get the service back where it used to be'. However this eventually became a rod for our own backs. We re-created messy processes for a long time, without pausing to try and be more transformational about how social workers work.

We then ended up with a system that looked, felt slightly like Mosaic but was still a little far away when it came to functionality.

However when we were able to bring social workers closer to the work and not just senior managers, the impact of our work improved significantly. We were able to not only serve our team on the ground, but improve their function collaboratively.

Reflection 3

Rapid Development

Getting something useable with Google forms in 10 weeks after the cyber attack was nothing short of a miracle. But continuing to rebuild outdated, legacy processes quickly caused a lot of challenges for us in the future.

After our reset and the birth of the core-pathway team, we were able to build small rapid prototypes which allowed us to get feedback quickly and build a service that was designed from the ground up.

Reflection 4

Leadership change is hard too

Technology is fundamental to service delivery and service models. So, alignment with leadership direction is key.

Maintaining this over time is hard, especially in the context of serious service impacts from the cyber attack, and we found it especially hard to:

- Ensure that the ‘twin track’ approach was understood
- Keep the alignment around the potential transformation opportunities that the ‘modern tools’ could unlock

There’s no simple fix to sustaining direction and delivery when leadership changes, especially given how firmly embedded local gov ‘norms’ are. But the more that impact can be shown as the work progresses the stronger the case will be. (A case for delivering value iteratively, early and often.)

Reflection 5

There is a big opportunity for change in ASC



There is a space for our ASC products to increase efficiencies and reduce spending in a market that has been stagnant for years.

This isn't just about reducing the cost of technology, it is fundamental to enabling more agile, innovative and integrated service models and supporting a shift from crisis to prevention.