aws

Accelerating Digital Innovation in Local Government

A citizen-centric transformation

Contents

Digital transformation is enabling modernisation and improvement

Local authorities are going through a period of considerable change as they seek to deliver new and improved services for citizens whilst under continued financial constraints.

In this ebook, we highlight some of the best examples of modernisation and improvement being deployed by local authorities - of all sizes – in order to share best practice and point the way to easily replicable solutions.

The examples cover a broad range of services, so we've focused on a number of key priorities:

› **Transforming services around the citizen**

› **Automating processes and innovating at speed**

› **Repeatability and the value of sharing successes**

We hope these topics resonate and that you find these customer stories useful as you embark on transformation initiatives of your own.

SECTION ONE

Transforming services around the citizen

A quick scan of any council strategy will be enough to highlight to the reader that a focus on the needs of the citizen is not a new concept in local government. Local authorities serve their local populace and their services are designed to respond to the needs of those residents. At AWS, we have a mission to be the earth's most customer-centric company and our leadership principle of 'customer obsession' is first and foremost in our values, so this feels like the natural place for us to start.

› **Swindon Borough Council**
› **Lancashire and South Cumbria ICS**

Citizen-centred innovation at Swindon Borough Council

Swindon Borough Council have been working on a number of proof of concepts (PoCs) to see how technology can enable them to improve front line services for their citizens.

An innovative digital solution

The first example is their report-it fly tipping solution, which uses Artificial Intelligence (AI) and Machine Learning (ML) to identify fly tipping and prioritise the council response, saving them over 2000 staff hours on the ground, £3k per year on fuel costs and reducing average clean up time from 10 days down to 4.

They've also built a machine translation service for their Paediatric Therapy team, which they launched in less than two months. The services automate the translation of documents, reducing the per document cost from £159.81 to 7p and the actual translation time down from 3 days to 14 minutes.

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Inspecting bodies such as CQC, Ofsted and HMI expect to see evidence that services are supporting inclusion and equity in accessing services. The use of digital translation enables services to translate resources, patient information and letters at minimal costs improving the accessibility of their resources and patient information. Ensuring that service users can access information in their first language, demonstrates cultural awareness in accessibility and ultimately improves understanding and patient outcomes - It was amazing to find such a great solution when I thought I was asking for the impossible, a cheap effective and easy to use system to enable us to make our resources accessible in lots of languages to improve outcomes for children and families accessing our services."

Liz Wiltshire
Specialist Community Health Services Manager, Swindon Borough Council

Both solutions have been packaged in a way that makes them highly repeatable and easy to re-deploy for other local authorities. With these rapid successes, councils can quickly show the impact of digital transformation with minimal cost and resource overhead required.

Working with AWS

"**AWS was really engaging, easy and open to work with, and seemed to really care about the people of Swindon and the potential social good this project could do. The changes we have made with AWS have made it much easier for citizens to report, to be able to be updated on cases and we now have faster turnaround times.**"

Sarah Peña
Emerging Technologies Lead, Enabling and Operations, Swindon Borough Council

Breaking down patient data silos at Lancashire and South Cumbria ICS

Another organisation that's been working hard to transform around citizen requirements is Lancashire and South Cumbria ICS. They've leveraged cloud to deploy and scale a digital solution that helped local authorities in the region save lives during the pandemic.

At the start of the pandemic, Healthier Lancashire and South Cumbria Integrated Care System (ICS) had to move fast to coordinate a rapid response to the Covid 19 outbreak. They needed to predict and prepare for the urgent healthcare requirements of its 1.8 million citizens. This came at a time when Lancashire and South Cumbria and the other ICS bodies in the UK were already focused on how a regional approach could improve the health of their citizens and reduce healthcare inequalities between different social demographics.

An innovative digital solution

Understanding citizen healthcare needs and coordinating an effective regional response required pulling in data from multiple organisations. This was started with the creation of the Nexus health intelligence app by The Digital Intelligence Unit (DIU) at Fylde Coast Integrated Care Partnership (ICP). Nexus analyses and visualises healthcare data, and in order to share this solution across the region, Lancashire and South Cumbria turned to Amazon Web Services for rapid deployment on the AWS Cloud. The cloud-novice DIU team of just four people, built Nexus on the AWS Cloud in less time than moving to an off-the-shelf solution, rapidly scaling it across the region, whilst also being able to roll out multiple supporting applications throughout the pandemic. Deploying Nexus on the AWS Cloud enabled Lancashire and South Cumbria to:

›   Use mapping tools to monitor the geographic spread of Covid 19 in near real-time.

›   Identify Covid 19 patients for clinical review and to manage virtual wards.

›   Predict citizen healthcare needs, identify clinical and social vulnerabilities and to map patient outcomes.

The value of transformation

›   AWS now houses almost **2 million** records, including over **230,000** COVID-19 positive test results from Public Health England for the entire ICS population.

›   AWS hosts over **680,000** COVID-19 pathology results from ICS Hospital Labs, supporting around **25,000** request per week from clinicians.

›   There are weekly LAMP90 staff testing/screening results for over **19,000** NHS staff, reporting over **120,000** test results to date.

›   All data is **secured** using industry standards and following AWS best practices allow the team to adopt NHS Digital's Internet First policy.

Working with AWS

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Developing systems and functionality utilising AWS has led to a sustained period of innovation for our small, agile team. The shortened development life cycle and baked-in best practice means that we can bring insights to users of the platform at pace, without sacrificing on quality. The stability of the services AWS provides makes sure that we spend all of our time focused on delivering improvements and new applications, instead of fixing or monitoring issues."

Stewart Morgan
Senior Developer, The Digital Intelligence Unit at Fylde Coast Integrated Care Partnership

Automating processes and innovating at speed

As local authorities commit to digital transformation, there is often a clear need to break with tradition and embrace modern technology in order to radically overhaul processes. Replacing manual tasks with AI-powered automation is one such overhaul that can deliver impressive savings and significant citizen-centric service uplifts. Maidstone Borough Council went on this journey with dramatic benefits.

> **Maidstone Borough Council**
> **Northumberland County Council**

AI solution saves time and money for Maidstone Borough Council

The need for citizen-centric change

Maidstone Borough Council manage a wide variety of services, including benefit schemes, recycling functions and council tax management for over 170,000 residents. This broad service provision meant that the council received more than 60,000 documents a year as citizens used services, claimed benefits and notified the council of changes.

All of these documents – 25% of all council documents – were being manually scanned and entered into the document management system. The human-led processing was costly, error-prone and sometimes non-compliant with council standards. The need for a modern, cloud-powered-document processing flow was long overdue.

An innovative digital solution

AWS introduced Maidstone Borough Council to partner company Firemind, specialists in AI, machine learning, data and analytics. Firemind quickly understood the challenge and recommended an AI-powered automated document processing solution, with cloud-based storage and fast workflow.

Using a combination of AWS products – including Comprehend, Textract and Translate – the system automatically assesses and extracts text and photos from documents. It then identifies where the relevant information should be rooted and sends that to that team for processing. Maidstone started with a proof of concept of around 20 documents per week and then quickly scaled to over 500 per week.

The value of transformation

› Maidstone Brough Council benefits from a **quicker** more seamless, **intuitive** and **reliable** workflow system.

› **£40,000 of savings** made per year, freeing up resources for other projects.

› **No monthly fixed fee**. The system scales up and down according to usage, ensuring maximum efficiency.

› Machine learning enables accurate processing of all form scans and submissions, ensuring **consistency** and **compliance**.

› The reduction in human error could be seen within **less than a week**.

› The automated system saved more than one person's work, **freeing up resources** for more important council work.

500+

documents processed
per week

£40K

of savings made
per year

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Northumberland County Council enhances citizen engagement using Amazon Connect

As one of the largest councils in North East England, Northumberland County Council (NCC) needed a scalable and flexible contact centre to support its 316,000 citizens. The organisation was using an on-premises solution that was quickly nearing the end of its life. Wanting to modernise and enhance citizen engagement, NCC began exploring a new communications solution.

The need for citizen-centric change

In 2020 NCC quickly realised that its 11-year-old contact centre was no longer meeting its performance requirements. "Our legacy contact centre was very expensive to maintain and required significant amounts of engineering support," says Chris Thompson, director of information technology at NCC. "It was also difficult to patch and costly for the capabilities that we were getting from it." To improve engagement and streamline customer support, NCC needed to update its contact centre.

An innovative digital solution

Within 3 months, NCC adopted Amazon Connect, enabling them to enhance communications with its citizens, take more calls, and provide a higher quality of service. The solution is highly scalable and operates at higher reliability than NCC's on-premises contact centre, which saw frequent downtime. The council also enjoys greater flexibility on AWS. Previously, it would take 1–2 days and third- party tools to update the on-premises solution, but NCC can now scale quickly to support new teams and use cases on demand. Because Amazon Connect is cloud native, NCC can also facilitate remote work. "Now, NCC has agents who can work from anywhere, fully functional," says Todd. "That has made a big difference for its business continuity, especially during the COVID-19 pandemic." As of December 2021, 90 contact centre agents were using the solution.

NCC's AWS-powered contact centre is designed to support rapid change. When Storm Arwen affected Northumberland in November 2021, the council saw an increase in calls from affected citizens and needed to open its contact centre remotely. On AWS, contact centre agents were able to work from home, respond to these calls, and quickly deploy emergency support as needed. NCC seamlessly scaled to support increased demand and remote operations with no additional licensing, configuration, or changes needed. By centralising all communications on Amazon Connect, NCC contact centre agents can serve citizens faster and provide higher-quality services. NCC has seen high levels of satisfaction among its agents using the solution.
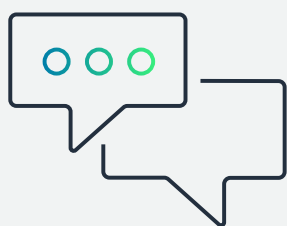
The value of transformation

› Centralised communications across multiple channels
› Generated automatic quality assurance reports
› Scaled to support over **316,000 citizens**
› Facilitated remote work for employees
› **Reduced manual labour** through automation

Working with AWS

"Similar types of projects require a 6–12-month implementation, at least, using Amazon Connect, we had an operational service up and running in just over 3 months without any impact to citizens"

Chris Thompson
Director of Information Technology, Northumberland County Council
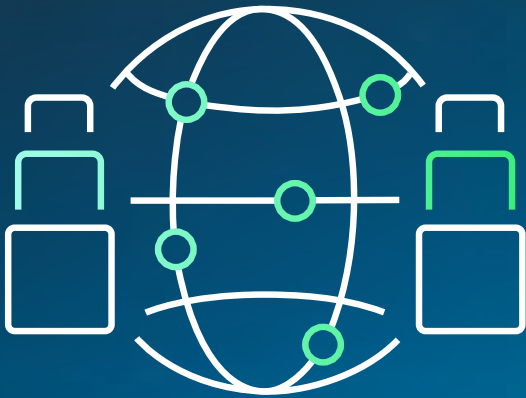
Repeatability and the value of sharing successes

Whilst there are regional variables that affect how local authorities prioritise resources and focus services, there are many similarities in terms of their obligations to their citizens. It makes sense, therefore that councils share best practice and reuse solutions that provide a good return on investment. Cloud has made this far easier, as a technology solution created by one local authority can be quickly and easily replicated to another, without the need to install and configure hardware on the ground. We spoke earlier about the great work Swindon are doing, and both of those solutions have been packaged in a way that makes them easily repeatable for other councils to adopt. Another local authority sharing the great work it's doing is Surrey Heath.

Surrey Heath takes control of IT in the cloud

Providing modern, user-friendly services is at the heart of local authority digital transformation. To create the right front end experience, requires back end technology that is robust, easy to update and cost-effective. Surrey Heath turned to AWS when it needed to rethink its outdated postcode-based services platform. The result was a beautifully simple solution that can now be adopted by all other authorities.

The need for citizen-centric change

Providing local information that is searchable by postcode is an important part of Surrey Heath's approach to facilitating citizen-centric services. However, its i-share platform was old and clunky. It had a very basic three column interface and citizens had to tab off to a map in order to search. They would then be deluged with all the results in a scrolling format. And the headaches continued into the backend. Applications with the on-premises system had to be updated by the supplier, which was slow, cumbersome and added to the already high costs.

An innovative digital solution

Surrey Heath worked with AWS-approved partner Nautoguide to build their new platform. In just a matter of weeks, they had a mobile-first, open source, cloud-based solution, that has an easy-to-use interface, with a map-based search facility that provides just the right information in a clear format that can be bookmarked. Using Amazon Lightsail, Surrey Heath is now in total control of all coding, website functionality and all the APIs that sit behind the site.

The authority can now make changes in minutes that would have previously taken many hours or even days. And importantly, Surrey Heath, didn't have to make any changes to data management - the solution uses a simple API call to data sets that they already have.

Low cost IT was a key driver for pursuing this project. "We wanted to build a low-cost solution that delivers a big impact," says their application developer team. The API-first open-source solution enabled Surrey Heath to reduce its IT spending by £24,400 per year to £600 a year for efficient use of serverless technology, freeing up money to be spent on other public facing services.

Surrey Heath estimates at least 60 hours a year has been saved since going serverless—not including the time generated from the ease of working with APIs—allowing the IT team to focus on where else they can optimize and innovate local services. "It takes a lot less of my time than before," adds the Surrey Heath Application Developer.

The value of transformation

› Cost savings circa **£24,000 per year**

› Time savings of around **60 hours per year**

› **Access to knowledge** of a global community of AWS developers

› Accessible solution supported by all devices

› **Ease of implementation** due to open source code

Working with AWS

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People in Surrey Heath now have a slick service that lets them find exactly what they need. We are now in control of every single step of the technology and can make changes, easily and whenever we want. I can see our APIs being added to the local government Drupal platform so that all other authorities can use the technology we developed."

Applications Developer
Surrey Heath Borough Council

What should you do next?

We hope you enjoyed reading these examples of modernisation and improvement being deployed by local authorities. If you would like to find how you can embrace best practice at your local authority and take advantage of some of these easily replicable solutions, please contact the **AWS Local Government Team**.

Email: **aws-uk-local-sales@amazon.com**