# **Colchester Council - Task management tool for neighbourhood services staff**

## 2. Lead authority details

**2.1 Lead authority name**

Colchester Borough Council

**2.2.1 Full name**

Kieran Johnston

**2.2.2 Role**

Strategic ICT Manager

**2.2.3 Email**

Kieran.johnston@colchester.gov.uk

## 3. Project details

**3.1 Project title**

Developing a fully featured, mobile-first task management application using Microsoft Power Platform to enable tasks and requests logged online by Customers to route directly to Officers in the field. Enabling the reduction of paper; capturing data at point of first contact (capture once); more efficient services; transparency of service delivery; and seamless reporting, trends, behaviours and analytical insights to improve local services.

**3.2 Project description**

We will develop a mobile-first task management solution, built using the Microsoft Power Platform and optimise it for use by Neighbourhood Services staff and Councillors. Focusing on:

• the end-to-end process from customer logging a task online using any standard forms package (or in our case Microsoft Dynamics)

• delivery to an officer in the field

• managing status “in-task”

• providing status updates.

Principles include:

• usability

• integration into Power BI for dashboarding

• low code, repeatable and scalable.

The application will work with standard Microsoft licences, at no additional revenue cost, and will be shareable with other organisations using the Microsoft cloud.

**3.3.1 The platform name and company**

We are looking to develop on the Microsoft Power Platform which is available to every Local Government Organisation as part of the standard Microsoft Licensing model. https://powerplatform.microsoft.com/en-gb/

**3.3.2 Do you have the platform already or do you have approval to procure the platform? For example, you have written a business case and the business case has been approved**

Yes we have the platform available

**3.3.3 Does the platform have a library to share modules/code that other councils can access? If yes, please tell us the URL**

No - we would share the code via forums and portals

**3.4 Describe how you will research the problem area and user needs arising from it?**

All councils deliver key and statutory services within our communities and need to find an automated, fast, efficient way to allocate tasks to their staff based out in the community without the need to access traditional case management or office-based systems. We believe that getting the right work to the right people at the right time should be simple and efficient; allowing frontline workers to deliver the vitally important services directly in our community without barriers.

All councils at District, Unitary or City level deliver frontline environmental services and in Colchester it is our Neighbourhoods team that focuses on Street care and safety: keeping our place and our communities, safe, clean, and well.

In order to support these vital services, many Councils have invested in online form packages, task management systems, complicated integrations, mobile applications and more alongside their investment in the Microsoft M365 product set which is often not used to its full potential. This kind of traditionally architected set up can be expensive to implement and to maintain, hard to support or change, and can be inflexible.

We have been exploring how we can optimise our use of the M365 suite of applications, within the existing licences we have, to deliver automated end to end solutions for some of our high volume/high profile services; extracting best value from the M365 licences we are already paying for, removing the need for additional third party applications, and improving the customer and officer experience.

Focusing on our Neighbourhood Services team, we have developed an alpha version of an application that manages tasks for our frontline workers allowing them to seamlessly receive jobs on a standard Mobile handset, in real time, whilst out in our communities. We call this application “Responder”. This application brings the whole process into a responsive Power App and removes the need for double handling and printing of tasks, enables action to be taken in real time, and negates the need for staff to visit a traditional office base – maximising the time our teams can spend in the community. Tasks raised contain all of the detail needed (including location, type, photos, geo location and map etc) and are intelligently prioritised and routed to the right recipient. Managers can see an overview of tasks and status and manage allocations via a browser-based interface should they wish to.

Our current alpha version of the application was developed in-house by our ICT team working in conjunction with our frontline workers and Management Teams for Neighbourhood Services. The application was built for Colchester to local design standards and using Microsoft best practice and is now ready to take to the next stage.

The focus of the alpha has been on street cleansing tasks, but there is a clear and demonstrable need to extend the task remit to that of grounds maintenance, parks, countryside and arboriculture activities. And further, provide the communication loop clearly needed by Councillors through the processing of a task.

The Beta Phase will allow us to focus on a solution for all of these task based requests; ensuring that our application is built in a modular way, meeting the demands of our service and others within a group of Neighbouring Authorities. We will concentrate on adding additional services, focus on integrated dashboarding and reporting using Power BI and the production of “portals” to allow Borough/District Councillors to gain real time views of all of their cases or summary views of all cases in their wards. Reducing the regular contact Councillors currently have with Officers to check status or chase up actions will save considerable time and greatly improve service. We will also look at options for integrating with Gov.uk services such as Gov Notify to generate real time reminders and updates to interested parties.

**3.5 Tell us about your users**

There are two primary sets of external users of our service who will benefit greatly from this application:

• Local residents who have an interest in reporting issues in their local areas to ensure they are well maintained, clean and that the residents can feel safe. The new reporting tool will enable residents to more accurately report the issues they are concerned with and to provide a photo as supporting evidence. Currently there is no way of being provided an update on the progress of action against the issue, unless contact is made to the Customer Contact Centre, email or log another report. This generates additional case enquiries. The proposal is to provide an automated response once works are complete.

• Local councillors who have an interest in reporting issues that both they identify and those that their residents report to them. Like residents, their current ways of reporting are online or email. They prefer email and this generates a lot of officer work, as the tasks have to be manually logged and many officers are frequently copied in, creating duplication. Councillors will frequently chase for responses and are frustrated that they are unable to monitor progress. The proposal will be a fundamental improvement and will make them feel more empowered to support their residents, whilst also holding officers to account should work not be progressing as quickly or effectively as they would expect

Key internal users are:

• The management and business improvement team, who will use the analytical data to help improve business decisions, monitor performance and develop work programmes to proactively tackle problem areas (for example using the data to identity hotspots for graffiti, using the images to identify perpetrators of the graffiti and working with Police using the intelligence to carry out enforcement).

• Finally, the frontline staff (12 FTE Neighbourhood Wardens and 23.75 FTE Neighbourhood Operatives), who need an improved way of recording their activities and demonstrating performance in as simple and effective way as possible, that reduces the need to spend time in the office or travelling and enabling them to spend more time undertaking activities to address issues in neighbourhoods.

There are a total of 71 types of task managed within the alpha version of Responder at the moment

In 2020, a total of 50,014 tasks were managed using Responder

Month End-to-End tasks managed

January 3,129

February 2,769

March 2,707

April 2,574

May 2,452

June 4,915

July 4,183

August 4,691

September 4,554

October 5,908

November 3,733

December 8,399

Total 50,014

In 2021, a total of 59,294 tasks have been raised to date

This shows an increase of 31,874 in comparison to this time last year (comparing Jan to Aug 2020 to Jan to Aug 2021), meaning a 116.2% uplift in adoption, as we enabled more tasks and rolled the application and service out across the wider staff base.

Month End-to-End tasks managed

January 8,550

February 6,726

March 8,152

April 7,570

May 7,136

June 7,858

July 6,053

August 7,249

Total 59,294

The proposed Beta phase will take this application to the next level and improve the service provided to our c.197,000 residents and c.3,000 businesses in Colchester through making reporting an issue quicker and easier, and providing clear, regular updates as the issue is dealt with. New and improved analytics and insight through Power BI dashboarding will inform future development and ensure our frontline staff in the Neighbourhoods Team spend more time out and about delivering essential services. All of our planned functionality has been driven by requirements gathering, user feedback both in test and in live, and the alpha development.

**3.6 Describe how your project team will have the skills and time available to deliver the project in an iterative/agile and user-centred way?**

We have a working alpha version of our application that is supported within a live environment. In creating this application, the ICT Team at Colchester worked with experts in our Neighbourhoods Team and with our Customer UX specialists to establish data models, define processes and workflows and design the service UI. Our approach to delivery is focused on understanding our reporting and data requirements and is very much user centric; working to an agile methodology of develop prototype, showcase, feedback, review in line with Microsoft’s Power Platform Application Lifecycle Management (ALM) https://docs.microsoft.com/en-us/powerapps/developer/component-framework/code-components-alm

Our Technology Solutions Team is focused on M365 Power Platform app developments and is experienced in gathering requirements and building solutions on an iterative but controlled way and we have process and documentation in place to support this in ensuring we follow Microsoft progressive development guidelines. We also have a successful track record in scoping and delivering finished solutions as showcased in our application catalogue https://sway.office.com/Cfs3luPTs24rXRf9. This catalogue outlines a few of our applications delivered and in use. The actual number of Power Platform applications developed by the team and in use at CBC numbers around 38 Canvas apps and 28 unique Forms (replicated hundreds of times).

We will look at formal training for any resources that we bring in to deliver this solution and will fund that training internally within CBC and partner organisations as this is an ongoing requirement. We will also ensure that we share skills and resources between the 3 partner organisations and Essex Online Partnership more widely to ensure the informal “on the job” training learnings are maximised.

We have no plans to outsource this development but will consider engagement with Microsoft Gold Partners to assess our current build and propose/challenge best practice around the beta phase build. We will also engage experts, where necessary to assist with ensuring integrations into front end, customer facing and other solutions are scoped appropriately and delivered as part of the beta build.

**3.7 Tell us about your delivery plan**

We have developed the alpha version of Responder (which is live and in use) and now have a beta prototype design for Responder 2 ready for development. The increase in adoption and a working knowledge of service requirements has informed the high-level design for the new optimised and enhanced version; designed to maximise the application and its templated components:

Work so far by in-house development team in preparation for beta phase

• Worked with experts in the Neighbourhood services team to test and understand improvements that can be made to the alpha version of the Responder application. Identified improvements cover both functionality and look & feel.

• Assessed opportunities around designing a template for task management that is optimised for development and re-development across other local authorities; with the key focus being on creating a template that can be adapted with low – zero coding knowledge.

• Focused on the specification for more intelligent automatic prioritisation of tasks and automation based on key criteria and conditional workflows. This provides a solution for specific requirements such as allowing Councillors to raise tasks directly in the app and early notification, or monitoring of, specific task types, which will reduce incoming email requests and manual intervention. The appropriate tasks are labelled as High Priority and end-to-end workflow is managed automatically through to resolution.

• Developed the model for allocating tasks against fixed GPS coordinates to make identification, assignment and management more accurate and ensuring the app is configured to enable queries against different data sets.

• Focused on ensuring the end-to-end process is optimised with audit logs, officer updates for “in-flight tasks” captured more efficiently and made available (as appropriate) to interested parties (whether staff, Councillors or customers).

• Worked to understand the parts of the existing application where User Experience is best and where it needs improvement, providing the template for a simpler, cleaner, more consistent User Interface.

• Consulted on the reporting and dashboarding requirements that have evolved through use of the alpha version and considered data architecture, application design and how to overcome Microsoft limitations with this in mind.

Our Plan for Responder 2

We follow the application lifecycle management approach championed by Microsoft for use with Power Platform: https://docs.microsoft.com/en-us/power-platform/alm/overview-alm

A high level project plan can be found here https://colch-my.sharepoint.com/:x:/g/personal/kieran\_johnston\_colchester\_gov\_uk/EZCGKDANhQJLn9WJLOE1p08B6mEYSw96Cb-IT-I8\_kN\_gw?e=dkbwdx : This plan outlines the type of approach we would take and defines the key activities undertaken at each stage. There are two tabs on this spreadsheet that should be reviewed

One of the key benefits of our approach is that the M365 product set is fully hosted and provided as a service. As such, applications developed on this platform are reusable by any organisation with M365. Consideration needs to be given to how a support structure would work once live but in principle the application and updates could be made available via Microsoft App Store for download as a self-service offering. As the application would carry zero revenue cost for any organisation with standard Microsoft licensing there would be a compelling case for other councils to cease existing task management products and/or to deliver service improvement and efficiencies through adopting the application

**3.8 Describe how you plan to build your proposed beta**

The existing Alpha build of Responder is built using the Power Apps low-code approach and is designed to link in seamlessly with Dynamics 365 Front End. All of the data is held within CBC Microsoft 365 tenancy.

During Beta Phase, we would look to take the core principles and building blocks from the existing Alpha application and re-engineer it; maintaining the low code approach and ensuring that our application is truly scalable, transferable and provides maximum value from our Microsoft Licensing.

We will focus on how we make the application available to all and consider how it will be deployed to organisations with no to low understanding of the platform. As part of this, we will look to ensure that the application is designed in such a way that any front-end forms or CRM package (such as Dynamics, Firmstep (Granicus), Wordpress etc) can be used at the customer front end to capture data to be passed into the Power Platform. We will build to Open Standards and use existing relationships within Essex Online Partnership to engage with key third party application suppliers to ensure that we build in such a way as to support Customer Self Service integration in an inclusive and secure manner.

Performance and success of the application will be monitored through user feedback, service level KPI data and metrics, customer satisfaction trends, uptime levels and technical performance monitoring. As key internal stakeholders, Councillors and staff will be vital in helping us assess the ongoing performance of the application and we will engage with representatives of these groups on a “Champions” basis to assess what is working well and what could change. We will build in a development schedule that takes into account Microsoft Platform roadmaps, Requests for Change, Bug fixes and enhancement requests.

Support for the application can be provided by anyone with knowledge of the Power Platform as all data structures, app design, and pre-requisites will be documented alongside known issues, common questions and answers (FAQs). A forum will be established to share knowledge and ask questions – creating a community hub

**3.9 Explain how your beta will consider the wider context of operating a live service**

Our Solution is designed with data security and data protection compliance in mind. All of the data is stored within our Microsoft Tenancy and structured in such a way that cases can be archived and deleted according to retention schedules. We will capture the minimum levels of data required to provide the service. A privacy impact assessment was completed for the alpha version and will be updated for the beta version.

Access to the application by staff or Councillors is controlled by permissions within our Microsoft environment and access is via Single Sign on with Multi Factor Authentication. These controls are in place regardless of what type of device is used (whether mobile handset to receive tasks or PC/laptop).

Customers will access the service via a secure front end (in our initial beta version Dynamics365) and their data and interactions will be protected by Microsoft’s enterprise level security.

Colchester Borough Council has been developing Apps on the Power Platform for over 2 years and has started to market these to other Local Authorities. We have produced a catalogue of solutions that solve standard local council issues and offer these for a one-off cost. Our application catalogue can be found here: CBC 365 Solutions Catalogue. Should we receive funding for this Beta phase, we would make this application available free of charge to all local government organisations. We would consider charging to cover costs for implementation and configuration expertise if required by other organisations and if deemed appropriate. Equally, we would encourage other authorities to take the design and enhance it further/amend it and make available

There are no IP or legal issues for consideration as the application will be developed on our tenancy within the Microsoft Cloud and will be provided to other organisations as a templated solution.

Colchester Borough Council, Maldon District Council and Tendring District Council are all part of the Essex Online Partnership Essex Online Partnership (eolp.info). This strong Essex-wide group will be used to collaborate and test assumptions, design models and asses benefits. It is proposed that this group is used as the first stage of any further roll out prior to wider take up across the country and we have a monthly agenda item at EOLP Management Group to track progress and explore opportunities.

Alongside this EOLP has a sub-group for Sharing Talent and Collaboration Opportunities There is significant Senior Level support for joint-working and seeking opportunities for how we can share resources and development plans and consideration will be given to how we could share the ongoing support/development of this application. There is significant interest in this application from the majority of partners

Microsoft has been a supporter of our development path with Power Apps and are champions of our approach to maximise value from licences and deliver efficiencies and value from their low code platform.

**3.10 How will you openly share the learnings and outputs from the project as the work develops, both with the sector and MHCLG?**

• We will engage with existing and potential audiences through a variety of channels. Existing networks such as Essex Online Partnership will be kept up to date through monthly Agenda items and the wider Local Government Community will be engaged through the use of blogging and vlogging.

• Colchester Borough Council’s CBC365 Solutions Linkedin profile (https://www.linkedin.com/company/cbc365-solutions) will be re-energised and used as a major communication channel. This channel currently has 135 followers and we would look to increase this considerably to raise the profile of the work we are doing on this application

• We commit to creating a project website – detailing our journey and providing a central point for pulling together all of our updates, communications, documentation and interactions

• Utilising platforms such as Slack will be considered during the initial project phase

• We aim to engage Microsoft and Microsoft Gold Partner networks to attend round tables, Breakfast meetings, showcases and more.

• Our current promotion of the work we are doing means we are actively speaking with multiple other local councils through referrals and interest in our solutions and experience and we would look to continue our sharing of knowledge, solutions, and experience through regular webinars and workshops.

• All learnings, documentation, code and FAQs will be made available via a shared platform. Documentation and user guides will include video, standard documentation, and walkthrough guides.

**3.11 Describe the estimated return on investment of the beta service / product and the development platform, both at a local level and to the sector, and how you plan to validate these estimates during the beta**

Prior to developing the alpha version of our application, Colchester had implemented a simple cloud based task management application supplied by a third party. The old third party application was limited in functionality, carried an annual cost of over £20k per annum and attracted cost each time we wanted to enhance or change a part of a service. CBC took the decision to build the alpha version of the Power Platform app when quoted £30k one off cost to make changes to the old task management system to enable service transformation. CBC now has a functioning task management app having invested staff time and resource to prototype and the release the new app; saving £20k per annum on licensing costs and paving the way for the beta build. The beta version of the app will also be built in such a way that future changes to services or functionality can be delivered by in house resource and made available to all; removing the expensive one off costs for change.

Anecdotal research indicates that whilst some Councils at this tier of local government have a task management system for frontline staff, many do not. Those that do have a task management system pay a similar amount per annum (£20k) and experience similar issues to the ones we experienced prior to building our alpha version.

Those councils that do not have a mobile task management application cite regular issues with paper heavy process, manual intervention, error and incomplete information, duplication and inefficient services and many have shown high levels of interest in our project. It is estimated that implementing the beta version of this task management system for Councils that do not have a current solution, would bring significant savings in administration time; enabling cashable savings through reduction in FTE or enable more resources to be allocated to staff out in our communities.

There are 312 Councils at this tier of local government that deliver the same services we do (the 36 Met Boroughs, 32 London Boroughs, 188 districts and 56 Unitary). For the purposes of estimating potential benefits, it is assumed that all of these have Microsoft Licensing at E3 level for their staff.

Even just allowing for a £20k\* per annum saving per authority (simply taking the annual application cost saving experienced by Colchester as a ballpark figure) there is potential for sector wide annual savings of £6.24 million. This is before we consider the operational efficiencies and the potential to redirect staff to frontline activities, the opportunity to make cashable savings through reduction in back-office staff, and any additional one-off costs for implementation and enhancement requests to traditional applications.

\*It is envisaged that savings per authority would in fact exceed this £20k per annum figure as many authorities would be able to release licence fees and make further efficiency gains. There is also the potential for neighbouring authorities to share services or overflow tasks if they are on the same platform and using the same application. Consideration would need to be given to data segmentation or data sharing agreements

**3.12 How much funding are you applying for to complete the project?**

£286,000

**3.13 How will the total project budget be used?**

| **Resource (e.g. staff time, supplier, contractor, etc.)**  | **Time / Quantity** | **Total cost / Value** | **Who will pay (e.g. Local Digital funding or a particular project partner)**  |
| --- | --- | --- | --- |
| Project Governance and Sponsorship | 15% FTE for ICT Governance Team and Senior Management support | £25k | Colchester Borough Council |
| Staff: User Research, training, communication and documentation | 1 | £40k | Local Digital Funding |
| Staff: Project Management including communication | 1 | £40k | Local Digital Funding |
| Staff: Testing Plan. solution design documentation, and release management | 1 | £40k | Local Digital Funding |
| Staff: Functional and operational testing, sign off | 1 | £25k | Partners |
| Staff: Power Platform (developer) | 2 | £110k | Local Digital Funding |
| Contractor: M365 Consultancy | 10 days | £15k | Local Digital Funding |
| Consultancy: Third party integration for x2 standard customer front ends (in addition to Dynamics) | 10 days | £15k | Local Digital Funding |
| Contingency | 10%  | £26k | Local Digital Funding |

## 4. Project partner details

**4.1 List any project partners working on the project, and the single point of contact for each:**

* Tendring District Council
* Maldon District Council