▶Combination of UI and own API

openreach

National utility working with every LHA in England

Combination of UI and API developed in-house

Big bang transition

Current state

- Working with **all LHAs** in every region in England
- Working with **c.20 contractors**

- Current **challenges** include:
  - Issues with different systems showing different things due to failed XMLs,
  - Inconsistency in the way data is submitted / presented e.g. 'target sample inspections' on one system show as 'Routine' on another EToN system as 'Target sample' is not part of the EToN spec. This is due to elective systems developments by EToN providers that don't align exactly with the EToN spec

Transition approach

- **Combination of UI** and **own API** developed in-house
- UI For Admin functionality and smaller Contractors.
- API for larger contractors and Openreach DL (separate API's directly to Street Manager)
- All contractors set up using the Street Manager Contractor functionality

Why would this work

- **Contractor functionality** allows contractors to set up and control their own teams access' (based on the size of Openreach this is a significant job)
- **Big bang** approach is deemed appropriate given the fact that Openreach works with every single LHA in England

Progress so far

- **Systems** – on track to develop on own API in time for March 2020
- **Contractors** - all contractors have access to the sandbox to begin their own testing, with those that intend to develop an API working on them already
- **Transition rules** and **training** for UI has been shared with all contractors/DL teams
- **Internal comms** to prepare all teams for transition from systems and processes perspective

Tips for others

- Engage early on with your Contractors and DLs and ensure regular communication with them

►Combination of UI and own API

Multi-regional utility working with over 60 LHAs in the Midlands and South West

Combination of UI and API developed in-house for data flow

Phased approach to adopting Street Manager and leveraging its long-term benefits

Current state

- Working with **over 60 LHAs** in the Midlands and South West, including some noticing authorities.
- Working with several contractors, though they won't be on Street Manager.

- Current **challenges** include:
  ● Accessing the Street Manager website due to internal firewalls.
  ● Limited visibility of how 3rd parties are developing their API, and exactly how they will integrate with Street Manager API, and no ability to complete testing with them
  ● Planning the transition to Street Manager in a way that will not disrupt cross-border BAU work with Wales.

Transition approach

- **Combination of UI** and **own API** developed in-house:
- UI for the WPD Streetworks team to use.
- API to input initial information into the system from works management system.
- Accessed sandbox early and began assessing internal processes.

Why this approach?

- **API** is used for the "heavy lifting" to import data into the Street Manager and the team is then trained on the **user-friendly UI**.
- **Testing began early** to allow users plenty of time to become familiar with the new system.
- Training has been **iterative** and updated as new functionality is released.
- Street Manager is being viewed as a long-term project. This is only phase 1.

Progress so far

- **Systems** – on track to develop own API in time for March 2020.
- **Internal processes** - a review of internal processes and impact assessment will commence in January now that stakeholders are familiar with the UI.
- **Training** - training has begun for UI users. This is being updated as new functionality is developed.
- **Internal comms** - internal stakeholders are kept abreast of what is on the roadmap for pre and post April.

Tips for others

- Take a **pragmatic** view of the project and collaborate with other users to get the best from Street Manager.
- Break work into **manageable pieces** and achieving immediate priorities first
- Be open-minded and keep abreast of **UI developments** even if you are using API.

▶Combination of UI and API

Leicester City Council

Council working with 1 HA and over 25 Statutory undertakers

Combination of UI and API. API used by major users (10+ permits raised per day)

Phased approach to adopting Street Manager, allowing plenty of time for internal training

Current state

- Working alongside another Highway Authority and 27 Statutory Undertakers.
- Working with several contractors who will be using Street Manager via the UI.

- Current **challenges** include:
  ● There are difficulties with setting up contractors to be able to use our EToN system.
  ● Currently experience difficulty with locally hosted system only being available on specific devices.

Transition approach

- **Combination of UI** and **API:**
- UI for the users who raise fewer than 10 permits per day.
- UI to also be used by LLC contractors.
- API to be used by 'major users' who raised over 10 permits per day.

Why this approach?

- The combination allows Leicester to save money on licensing costs as the UI has the functionality required to raise and manage permits.
- Contractors will be using the UI as it allows Leicester to give them access without setting up VPNs or using remote access, which is time consuming and costly to set up.
- Use of API in the short-medium term allows us to complement Street Manager with additional functionality, until it is developed within UI.

Progress so far

- **Systems** – API ready in time for March 2020.
- **Training** - training began in December for UI users. This included:
  - an initial demo of the system
  - all users of the council then practicing submitting and accepting permits, FPNs and inspections using dummy data.
- **Internal comms** - council users have been informed early and had the opportunity to test the system for themselves. Updates shared regularly.

Tips for others

- Use of API will be reviewed regularly to determine when Street Manager is developed so that we can switch to using the UI only.
- Give all users plenty of notice (our first training session was in December) as it helps ensure that nobody is surprised when you go live in March.

API approach with consideration of UI usage for permits

SOUTHAMPTON CITY COUNCIL

Highway authority working with a variety of promoters and HAs

Trialling API-only approach, but also exploring UI

Final approach still to be confirmed

Current state

- Working as both the **Highway Authority** and the **Highway Contractor.**
- Work with **5 main utility works promoters** and process permits for numerous smaller organisations.
- Also manage permits for Southampton City Council's internal works.

- Current **challenges** include:
  - Some limitations with current system, including capacity and mapping capability, requiring work-arounds.
  - Synchronising communications in current EToN environment, for example when processing works after down time.

Transition approach

- Currently pursuing an **API** approach but exploring the potential of using **UI for permitting as the system develops.**
- As the UI functionality develops further it may prove to be **more appropriate** for the business needs to ensure consistency of data and one source of the truth.

Why this approach?

- Many processes have been **designed around the current system** and it could be challenging to change them all at once.
- Using an API link will **retain current functionality** and give inspectors access to the system whilst on site.
- Using the UI would **prevent any discrepancies in data** between systems, which has historically caused problems. Exploring UI may solve this issue once and for all.

Progress so far

- **Systems** – API is in the process of being developed
- **Internal processes** - testing on Sandbox has allowed for process review and gap analysis, with potential to improve current processes and ways of working
- **Training** - internal stakeholders have access to Sandbox and are trialling common journeys to assess how they are handled.
- **Internal comms** - internal stakeholders are engaged, getting hands on experience of Street Manager and clear about its opportunities and current limitations

Tips for others

- Gain access to sandbox as soon as possible. Let your team experiment with the UI and invite their feedback.
- Be honest about your current work-arounds. Could you use Street Manager as an opportunity to re-assess them?

4

UI-only approach

Highway authority working with 9 contractors

Adopting Street Manager through UI only

Working through an in-depth adoption plan with all stakeholders

Current state

- Current provider will not be developing API to Street Manager
- Engage **9 contractors** for routine and reactive repairs, through LoHAC or other contracts.
- Have **proactively** engaged with the DfT and the business change team to understand what Street Manager will entail and develop a comprehensive transition plan

- Current **challenges** include:
  - Some workaround processes in place to mitigate limitations, some of which will continue in future

Transition approach

- Decision has been taken to pursue a **UI-only route,** as the current system will not be developing an API link.
- **Sandbox access** was requested early (August 2019) to begin the planning and training preparations.

Why this approach?

- Contractors are mainly set up as individual users as they work for this HA only or carry out a small number of works for the HA
- Using the UI will ensure that data is entered directly into Street Manager and prevents **dependencies on two pieces of software.**
- Enfield will benefit from o**ngoing developments** to the Street Manager system as it develops **in response to user feedback.**

Progress so far

- **Systems** – decision to proceed with UI has been finalised and gained corporate approval.
- **Internal processes** - areas where work-around processes will be required have been highlighted and alternatives are being explored.
- **Training** - internal staff and contractors have been set up as users in sandbox. Initial training has been carried out and further training planned. Admins set up in production.
- **Internal comms** - comms have been sent to the whole organisation to inform about the planned change. Contractors have been engaged and know what to expect.

Tips for others

- Communication is key. Work with your contractors and staff to ensure that everyone is clear on expectations and change requirements.
- UI transition is an easy route in terms of long-term benefits.

Thames Water ▶

Combination of UI & API

Utility working with 57 highway authorities

Adopting Street Manager through a combination of API & UI

Developing an in-house API to feed into two separate Works Management Systems

Current state

- Currently working with over 20 Contractors on a number of workstreams.
- Working with 57 Local Authorities.

- Current **challenge**:

Each EToN developer has their own interpretation of the legislation which sometimes do not match, resulting in unnecessary 'animated discussions' between us and highway authorities when using differing systems.

Transition approach

Combination of UI & API:
- Contractors working on large engineering works will be using UI.
- Vast majority of users will use API with the additional functionality (mapping) of the UI.
Joined Sandbox in early Private Beta to allow for planning and training preparations.

Why this approach?

- API supported by UI functionality allows for users to view potential clashes/collaboration opportunities on the map.
- Users already use API so developing an API will reduce the impact on BAU.
- Developing an API in-house to ensure it is completed in time for go-live.
- Big bang approach is deemed appropriate because they can't afford delays in transition.

Progress so far

- **Systems** – API has been developed, SIT is complete and now in UAT to test integration between current works management system and Street Manager.
- **Internal processes** - users are in Sandbox and working with councils to determine how Street Manager works.
- **Training** - training for the works management system and UI are starting next week. Both are being trained and given experience on the Sandbox environment.
- **Internal comms** - regularly sharing latest information with the organisation and Contractors.

Tips for others

- Get access to the Sandbox environment ASAP as it allows you to identify how BAU will change.
- Work with your tech team/API provider so they have visibility on your organisation's requirements.
- Embrace the change so you can put your effort into making the transition easier for yourself.

Combination of UI & API

Hertfordshire

Local Authority and Highway Contractor working with multiple other contractors

Adopting Street Manager through a combination of API & UI
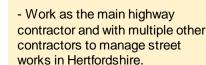
Testing extensively to discover the best solution for their needs

Current state

- Work as the main highway contractor and with multiple other contractors to manage street works in Hertfordshire.
- Submit permits in-house on behalf of their contractors to smooth the process.
- Joined **Private Beta** and benefited from an extended testing period.

- Current **challenges** include:
  - Ensuring that all organisations are up to speed with the permitting journey.
  - Managing different systems and permit journeys in-house on behalf of an array of organisations.

Transition approach

Combination of UI & API:
- Intend to use the **UI for data input** - including raising permits, granting permits and carrying out inspections.
- API will be used for r**eporting purposes** and any supporting functionality which Street Manager is unable to fulfill.

Why this approach?

- Extensive testing from the Private Beta phase revealed that the UI has strong functionality for many activities and is now the preferred option.
- Reporting has not been a focus for the development of Street Manager, so an API link is the appropriate way to pull analytics and reports from the system.

Progress so far

- **Systems** – testing has been ongoing since Private Beta began on 1st April 2019, using test scripts from Private Beta and own scenarios
- **Internal processes** - all contractors have been informed of the change and regularly attend round-table meetings to discuss the latest Street Manager developments.
- **Training** - a "train the trainer" plan is scheduled to begin in February, to reduce waiting time between training and go-live.
- **Internal comms** - all staff are aware of timelines for both training and transition.

Tips for others

- Request **access to Sandbox** ASAP to give you time to play around and understand the functionality without time pressures.
- **Communication** with your contractors and other works promoters in the region is crucial to plan a cohesive transition. Talk to one another regularly.

7

API approach (currently using some UI features in Production whilst waiting)

THE ROYAL BOROUGH OF
KENSINGTON
AND CHELSEA

Highway Authority working with over 30 promoters

Adopting Street Manager through API

Inputting S58s in the production environment early

Current state

- Work with over 30 promoters and 2 main Contractors.
- API is currently being set up and early adoption of the Production environment has commenced for s58s only.

- Current **challenge**:

They are in the process of trying to identify the differences/gaps between their current EToN provider and Street Manager, so they can develop appropriate processes. There are concerns that the API may not work seamlessly with the new system.

Transition approach

API approach:
- Whilst the API is being set up, RBKC have recently started inputting S58s into the Production environment, 3 months prior to rolling out their 2020/2021 Planned Maintenance programme.
- As their Contractors were involved in Public Beta testing, they were able to set themselves up in Street Manager.

Why this approach?

- Inputting S58's into Street Manager requires less work than their current EToN provider. Their engineers found it very simple and user friendly. They are now familiar with the new process and are confident enough to continue adding future S58' and forward plans.
- Transitioning one element of their system over to Street Manager allows for a simpler journey.

Progress so far

- **Systems** – introduced inputting S58s in the Production environment to test the new system.
- **Internal processes** - internal engineers are involved in the production environment testing to ensure they are comfortable with the new processes and ways of working in Street Manager.
- **Training** - carried out training by testing the permit journey with a contractor organisation, as well as training Highways engineers on how to submit S58's on the UI.
- **Internal comms** - Internal communications have been sent out (briefings/information) to all internal parties affected by Street Manager.

Tips for others

- Start small with simple tasks to gradually familiarise yourselves with the system/processes.
- Take a look at the youtube Hole Story videos so that you understand what has been developed, what workarounds are required and what contingencies need to be put in place.

API-only approach

Highway Authority working with over 10 utilities and other LHAs

Adopting Street Manager through API

Working with 10 neighbouring LHAs to ease the transition

Current state

- Work with over 10 utilities and other LHAs to manage the roads around South Tyneside.

- Formed a working group with 10 neighbouring LHAs who will all go live with permitting in Street Manager on the same day.

- Current **challenge**:

Navigating the transition from noticing to permitting at the same time as the move Street Manager.

Transition approach

API-only approach:
- To limit the risk of changing both ways of working at the same time, South Tyneside will be using an API link.
- They have agreed to work in collaboration with 10 other LHAs, who will all go live with permits on the same day.

Why this approach?

- The User Interface will remain familiar, limiting the volume of training which staff need to be put through.
- All organisations in the group are using the same approach and are able to share training, lessons learnt and best practice amongst each other.

Progress so far

- **Systems -** an API provider has been selected. Development and testing are underway. Stakeholders are being kept informed of how these activities are progressing.
- **Internal processes** - staff are learning how the permitting process differs to the noticing process.
- **Training** - internal training is not required due to the User Interface remaining very similar. Staff have access to the Street Manager UI to understand how the system works and how it will interact with the API.
- **Internal comms** - all internal staff (including IT/support staff) have been informed of the change.

Tips for others

- Communication is key! Talk to your construction team and your IT team as soon as possible. It is a good idea to get everyone in the same room to understand worries which different teams have about the transition and plan how you can help one another.

9

London Borough of Bexley

LONDON BOROUGH OF **BEXLEY**
Trusted by Bexley residents

Highway Authority working with internal and external contractors

Adopting Street Manager through UI

Created a thorough plan to manage the transition

Current state

- Bexley work with both internal and external contractors to manage the local road network.
- They have chosen to use the Street Manager UI for all activities, and are encouraging contractors who they work with to do the same to create uniformity.
- Work has begun to input information into the Production environment well in advance of the 31st March deadline.

- Current **challenge**: Challenges with the current EToN system include not being able to record inspections live, firewall issues, bulky historical information and slow reporting.

Transition approach

UI-only approach
- Bexley will use the UI for all functionality, and is encouraging contractors to do the same.
- The hardware which inspectors use has been updated, meaning that live site inspections will be possible henceforth.

Why this approach?

- Information transfer will be faster without an API link.
- The permit officer and the contractor will see exactly the same screen(s) and information. This should prevent disparities between systems, which has been a problem in the past.
- Most S58s have already been logged in Production. Being able to begin the process now has eased the pressure on staff.

Progress so far

- **Systems** - sandbox access was requested early to give staff time to play in the new system and familiarise themselves with the user interface.
- **Internal processes** - all internal processes have been examined to understand where any impacts will be. Necessary re-designs are in progress.
- **Training** - training on the inspection process and S81s has been created and is being rolled out. User guides have been created to act as an information repository.
- **Internal comms** - all internal staff are aware that the change is imminent. Feedback on training and materials has been requested.

Tips for others

- Gain access to sandbox as soon as possible. The more time you have to familiarise yourself with the environment, the easier it will be to plan training needs. Keep checking back for updates to functionality (which can be found in the fortnightly newsletter) and update your plans accordingly.

Combination of UI & API

Transport for London

- Works with 16 internal contractors

- Adopting Street Manager through a combination of UI & API

- Carried out integration testing with other business critical systems

Current state

- Transport for London currently work with 16 internal contractors.
- Have proactively engaged with the DfT and the Business Change team to understand how Street Manager will impact their organisation.
- In the process of testing how their current systems will integrate with Street Manager.

- Current **challenges**:
- Understanding the business impact of Street Manager requires a complete and extensive review of internal processes.
- Testing is challenging because current data differs from future data, and so a lot of assumptions need to be made.

Transition approach

Combination of UI & API

TfL has two branches within their organisation, an HA and a Promoter side.
- TfL as a promoter will use the UI
- The HA side will use the API

Due to the size of the organisation, the transition approach has been to create separate teams to manage both promoter and HA elements. These teams work closely together to ensure that operational impacts are minimised for the April go-live.

Why this approach?

TfL have had long-term contracts with their system providers, and so the systems they currently have are more bespoke than Street Manager.

This enables the HA side to use an API solution via their third party solution provider.

The Promoter side is using the UI whilst they develop an internal solution to manage works planning.

Progress so far

- **Systems** - The LondonWorks Central Register has been successfully integrated with the Street Manager API, enabling historical EToN data and new SM data to be shown equally on a map, which allows for essential cross-boundary coordination functions to continue without impact.
- **Internal processes** – Following an extensive internal review, processes are now better aligned and streamlined.
- **Training** - Began testing in the Sandbox environment, using dummy data to experience the new processes and utilising change materials shared on GitHub and YouTube.
- **Internal comms** - Established a comms network to ensure operational staff and leadership teams are aware of the latest information.

Tips for others

- Dedicate as much time as possible to business process and technology testing.
- Revisit your comms plan regularly as your transition evolves.
- Ensure those who are accountable for internal processes are aware of the risks that the change entails.

Combination of UI & API

CONWAY

Contractor working with 17 London boroughs, TfL and one utility company.

Adopting Street Manager through a combination of UI & API

Successfully rolled out end-to-end testing with UAT scripts

Current state

- FM Conway are a large contractor who offer the full package, from consultancy to delivery, to public and private clients.
- Their operating environment is complex and must be integrated with many highway authorities.

- Current **challenges**:
- Each highway authority has their own approach to adopting Street Manager, so the transition will not happen simultaneously in each region.
- The COVID-19 pandemic has necessitated an unexpected shift to home working. Training plans have been redesigned as they can no longer be delivered face to face.

Transition approach

Combination of UI & API
FM Conway will use a combination of API and UI for different purposes.

- **UI** will be used for major works.

- **API** will be used with their works scheduling system for reactive works. This has been built to allow two-way comunication. An API link has also been built to allow Street manager to be able to speak to their client's Street Works systems.

Why this approach?

This approach reflects the complexity of the operating environment, which required a bespoke solution to cater for all eventualities.

Some existing ways of working have been maintained to limit the impact on staff.

Progress so far

- **Systems** – extensive end to end testing has taken place from the Works scheduling system through to Clients' Asset Management system, employing a rigorous UAT script.
- **Internal processes** – internal processes have been adapted to fit with Street Manager. The switch to Street Manager has been staggered to align with each borough's individual go-live plans. Three have successfully gone live to date.
- **Training** – the planned training programme has been adapted for home deliver mostly over microsoft teams and other collaborative working tools.
- **Internal comms** – all affected parties have been taken on the Street Manager journey with training and comms. Seeing three cases of a successful transition has bolstered confidence in the system.

Tips for others

- Good Client engagement and a clear strategy of how to carry out a robust testing of systems against a realistic timetable is a must.
- Having a knowledgeable, dedicated team is vital and we would highly recommend transitioning to Street Manager Production ahead of the 1st July, as this allows for an easier cutover of existing EToN Street Works and more time to become familiar with the new Portal.

API-only approach

Utility company working with one contractor.

Adopted Street Manager through API.

Successfully went live on the 1st July.

Prior state

- Portsmouth Water are a utility company who provide water to Portsmouth and surrounding areas.
- They work with one contractor who is fully embedded in their organisation and office premises. This is deliberate to foster collaboration.

Challenges with EToN:

- Inability to see what or when permits had reached the receiving HA.
- Infrequently, problems with connectivity were difficult and time consuming to solve because of the use of different systems and defining the lines of responsibility

Transition approach

API-only
- Portsmouth Water used Symology to connect to their EToN configuration and continue to do so with Street Manager.
- Works are fed into Symology complete with co-ordinates via an interface from the Works Management System. They are then planned and proposed within Symology.
- All subsequent actions to final registration are processed using Symology.

Why this approach?

- Symology's solutions have proved to work effectively for Portsmouth Water in the past, so they had confidence in their products.
- Minimal training was required since employees were already familiar with the system.

How was the transition process?

The transition required lots of effort and time, but Portsmouth Water were confident of a good result thanks to a combination of:
- Rigorous internal approach towards testing all required scenarios.
- Planning to mitigate the effects of working from home.
- The close support of Symology and the DfT team through different communication channels.

Tips for others

Make sure key people are reading the information, attending the events, and thinking about your approach and what needs to change.

How did you feel initially?

"That it was highly ambitious, presented risks due to the lack of data migration for example, and that it was being pushed onto the industry. However the overall aims made sense."

How do you feel now?

"We are impressed with the navigability and interface of UI (although we do not use it for processing live transactions), the commitment and knowledge of the project team, and the smoothness of the implementation on time. It does, however, cost us a significant extra amount of money per year."