

Street Manager

NEWSLETTER



Street Manager is a new digital service by the DfT that is transforming the planning, management and communication of street and road works. Using open data and intelligent services, its aim is to minimise disruption – and improve journeys for the public.

Street Manager Newsletter 34 – 11/05/2021

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1. Welcome

Welcome. This newsletter might contain fewer items than usual, but the ones that are included are quite meaty. We take the outage last month very seriously and wanted to give you more detail on what happened and what steps we have taken to prevent a repeat.

In other news, whilst there is always a focus on the user here in Street Manager Towers, these last couple of weeks have seen a particular focus on changes that benefit the user. We have really improved the performance of the exports, making the downloads run much quicker. We are tweaking the map, so that users can zoom out a couple more levels and still see the pins on the map, only a small change but I think people will welcome it. And we are adding search functionality to the FPN list page. All these things are with you already or will be with you next week. In addition, we are busy working on how to best add the Street + Town search which is the no.1 most voted idea on the ideas board. We've pretty much cracked that and now it is a matter of when we can fit the development in over the coming weeks. Street Manager is like a boulder rolling down a hill, it is getting bigger and bigger, it's picking up steam and it cannot be stopped!

2. Performance Degradation Update

Street Manager performance issues Wed 14th – Thu 15th April 2021

We promised you a more detailed report about what happened last month and an update on the lessons learned in case we have anything similar happen again in the future.

What happened?

At 09:48am on Wednesday 14th April 2021, the Street Manager monitoring tools highlighted a performance issue with the Reporting API. The Reporting API is the underlying service responsible for handling list pages in Street Manager, for example, listing permit applications and works and their associated data. The Reporting API provides 15 endpoints. Two of these endpoints were the focus of the investigation - /reinstatements and /alterations.

The Street Manager Application Programming Interfaces (APIs) are the means by which other systems integrate and exchange data with Street Manager as opposed to users using the Street Manager web user interface (UI).

The trigger for the issue on the 14th was a significant increase in the volume of Reporting API requests from one API integrator. Although the volumes were within Street Manager's request limits, they were about 200-300% over what had been seen to date. As a result, the Reporting API service was unable to effectively scale and handle all the requests appropriately, causing a knock-on performance degradation for some other API and UI users.

Lessons learned and actions being put in place

- We had feedback at the time and from the Street Manager governance group that the communications we issued at the time could have been more frequent, in plain English and could have provided more information about what users could do. We have therefore now introduced the following improvements to the process of communicating with users should there be a disruption of the service:
 - As soon as discovered, we will acknowledge the issue on both the [Disruption to Service Availability Page](#) and the [Support Portal](#) and send an email to all users in the event of a P1. In the event of a P2, a decision will be made on a case-by-case basis in agreement with DfT.
 - Whenever possible, we will communicate the scope of the outage, who is being affected and in what ways, describing the issue in the way the customer is affected instead of the internal cause. "Users are unable to run reports" is better than "the report endpoint is inaccessible."
 - If there are workarounds or backup options available that will work in the meantime, we will make those known, clearly explaining how customers can take advantage of workarounds until things are back to working normally.
 - We will send targeted communications to any API integrators who may have been responsible for triggering the incident with instructions, if needed, on what to do and what not to do during the incident and once recovery measures are being implemented.
 - We will provide as much detail as will be helpful in plain English.
 - We will provide regular updates. Even if there is no new information to share, consistently updating messages helps those affected know that the issue is still being worked on.
- We have prioritised two more optimisations, one for the alterations endpoint and a second more general optimisation to clean up requests that have already timed out. These will be available for deployment in the next release or earlier if agreed.
- We are prioritising more performance investigation and testing in order to identify further potential optimisations. This will include planning dedicated developer time into sprints to support performance testing events and activities.
- We have implemented new dashboards to aid our monitoring and will continue to research options for further detailed monitoring and analysis of database metrics. We will continue to monitor and improve on these dashboards on an ongoing basis
- We will be asking all API integrators to provide two senior technical contacts empowered to make decisions and agree changes.
- We will update Street Manager's integration best practices and reasonable use documentation to:
 - Ensure any integration or changes are well tested and verified against the [sandbox environment](#) before deploying to production.
 - Ensure sufficient error monitoring is in-place for any integration.

- We also discussed at the governance group the need for an updated policy on what the back-up options should be during incidents like these to cover, for example, what to do if Street Manager is partially unavailable, whether we should have set timings for certain actions, how incidents should relate to issuing any FPNs for works start and stop notices. Sally will work with the group to agree this policy over the next few weeks.

Service Disruption Times

The disruption times are available in the [Disruption to Service Availability Page](#).

We will ensure that the service disruption page will be updated as soon as there is an issue to the service causing disruption to its availability and once it has concluded. The disruption times will be confirmed on this page the day after the issue has been resolved.

Street Manager's performance was disrupted as follows:

- 15/04/2021 08:38 to 15:38: Production environment had degraded performance for 7 hours due to system behaviour under an increased load of requests from a 3rd party integrator.
- 14/04/2021 09:48 to 18:09: Production environment had degraded performance for 8 hours 21 mins due to system behaviour under an increased load of requests from a 3rd party integrator.

We have heard that some FPNs have been issued for late submission of works start and stop notices during these times, due to no fault of the promoters. The DfT would not expect FPNs to have been issued during these times and we would hope that they can be cancelled if they should have been received between these times. FPNs issued for unrelated offences would still be valid

3. API Integrator Contacts

As API integrators, you will have been granted third party organisation access to Street Manager in accordance with the third party framework (https://departmentfortransport.github.io/street-manager-docs/assets/files/third_party_framework.pdf) and Street Manager's terms and conditions (<https://departmentfortransport.github.io/street-manager-docs/terms>).

As you will know, we monitor use of Street Manager's API service and performance of the service. There may be times when we need to contact you as technical representatives for triage and action in the event of an issue. The need to have contact details for technical representatives in API integrator organisations was further confirmed during April where a performance degradation in Street Manager required us to contact an organisation to resolve this issue quickly and efficiently in a collaborative manner. We are asking for a minimum of two technical contacts that should have a technical understanding of your API integration and are empowered to take any necessary actions that may be required to resolve any technical issue.

Could you raise a ticket via the [Support Portal](#) with the following information for two technical contacts please?

- Organisation
- Name
- Job title
- Email
- Mobile number
- List of the organisations who have granted you access to their Street Manager data.

This will help us ensure we contact you first instead of unnecessarily escalating to the direct organisation involved.

Lastly, we would also like to use the email contacts you provide to inform you about upcoming API migrations as we bring forward new versions and to inform you of relevant upcoming technical webinars.

4. Where Next for Street Manager

Background

Now that Street Manager has been in use for nearly a year (and as work continues to progress the roadmap during 2021/22), a separate discovery/alpha team is focused on looking at further user needs and using insights to propose development opportunities for the Street Manager Service from April 2022 and for the three years after that.

The report is due at the end of July and will be used to inform the roadmap for 2022 onwards, street manager charges from April 2022 onwards and business cases.

What we've done so far

We have focussed on areas of interest that DfT and users have initially flagged as potential areas for future development and continuous improvement, as well as now other areas users are raising during our work. So far, we have



- Carried out 35 interviews
- Spoken to 44 participants
- Desk research on 5 authorities
- Observed 2 API demos
- Reviewed mapping options
- Released survey to further investigate Open data requirements

Next steps

Our user research will continue. We will be reporting our findings to DfT who will, in turn, report to the Street Manager user governance group and let everyone else know the outcome of this discovery/alpha in the autumn. If you are invited to an interview or workshop, please do take part and let us know what you think about what should be next for Street Manager.

5. Withdraw an Inspection

An exciting time for Street Manager as we have introduced the ability to Withdraw an Inspection into the front end. Scroll to the bottom of any inspection (as a Highway Authority) and you'll see the option to Withdraw.

You can leave a comment on the [works record](#)

[View activity in works history](#)

[Withdraw inspection](#)



We aren't quite finished with this piece of work. We are busy as we speak updating the list pages, the export files, etc, so we haven't filmed a Hole Story video yet, but that will be with you in the next few weeks. This function was prioritised by the Governance Group and it is great to be able to launch it.

6. Reinstatements – Business Rules Amendment

A guest appearance now, from friend of the show, Jan Chapman of Thames Water:

Street Manager has been designed to record any reinstatement singly, with an indication whether there are more reinstatements to be added. When there are multiple excavations to be recorded which were completed during a particular permit, each individual site must be added singly. Each single reinstatement recorded with 'Are you registering the final site?' = no, must be considered a 'partial registration' until the last site is recorded with the answer to the final site question = yes.

For the purposes of Section 70 NRSWA the registration of any excavations/sites is not considered as complete until the 'Final site registered?' question is 'Yes' The business rules have been amended in red below to clarify this.

8.2. Reinstatement types

- *The reinstatement types are as follows:*
 - *Excavation*
 - *Bar holes*
 - *Core holes*
 - *Pole testing*
- *Reinstatement measurements and whether the reinstatement is a final reinstatement must be provided for excavation reinstatement type.*
 - *Optionally, a second set of coordinates may be provided. – However, this is mandatory for each individual site which is over 10 metres in length/width as per S70 NRSWA*
- *Number of holes must be provided for bar holes, core holes and pole testing reinstatement types.*

7. Street Manager Charges

It is the responsibility of each organisation to ensure that charges are paid on time. Organisations who need to update their PO numbers for the 2021/22 financial year should contact us at dftstreetmanagerinvoice@kainos.com as soon as possible to avoid unnecessary delays and provide the necessary PO numbers. The next invoice will be sent on 1 July 2021 for charges from April-June.

8. YouTube Videos and Webinars

Don't forget to check out the latest content on our Street Manager YouTube channel.

You can watch The Hole Story: Episode 25 – 'lane rental' by clicking the link below:

<https://www.youtube.com/watch?v=eNNVSrLoMTY>

You can also watch Diggin' Deeper: Episode 9 – 'recording a s50' by clicking the link below:

<https://www.youtube.com/watch?v=bdxaOIRIWPI>



We also have an upcoming webinar on 18/05/2021 at 11am on the subject of unattributed works. Please use the link below to join:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZTQxMzFIZGEtN2U1Ni00M2MwLTg0ZWQtNmI4NmVlODk5NDZm%40thread.v2/0?context=%7b%22Tid%22%3a%2228b782fb-41e1-48ea-bfc3-ad7558ce7136%22%2c%22Oid%22%3a%2236f698ed-be83-48a9-8212-451eb3606778%22%2c%22IsBroadcastMeeting%22%3a%22true%7d&btype=a&role=a