

#### **WASTE AND DATA TECHNOLOGY**



## Mobile Solution & Telematics with Integrated CCTV

Alexander Anderson (Service Manager – Waste Operations)
Shaun Kenyon (Team Manager – Domestic Waste)



#### **Overview**

- Every week over 185,000 properties receive a bin collection service, (4 x waste streams: Landfill, Cans & Plastics, Food & Garden Waste and Paper & Cardboard)
- 27 x 26t front line RCVs and 3 x 16.5t RCVs

  Rural & Hard to Access
- Twin shift system (Day shift 06:00 13:42 & Back shift 13:18 21:00)
- Over 6000 Assisted Collections per week
- Whitespace Back Office system to manage the domestic waste & All on Mobile to provide/receive information from the crews
- CMS Supatrak integrated camera system



### **Domestic Waste Mobile Solution**



Shaun Kenyon (Team Manager – Domestic Waste)



# Online Booking Via Fife.gov.uk

- 2014 Current day more services have become available online throughout the council
- All of the Domestic Waste services/requests are now primarily booked through Fife.gov (<a href="https://www.fife.gov.uk/kb/bins-and-recycling">https://www.fife.gov.uk/kb/bins-and-recycling</a>)
- Contact Centre is still available for customers without internet access.



#### The Process Prior to All on Mobile

Customer books/pays for a service on line (Fife.gov)

Information is processed and fed into Lagan

Lagan feeds this information into Whitespace

Whitespace prioritises the job and allocates the work to the appropriate role (Supervisor, Recycling Advisor etc)

Worksheets printed and handed to the crew that will carryout the work



#### The Process Prior to All on Mobile

Crew completes the work, signs off the worksheet and hands it back to the Supervisor

Supervisor places the completed worksheet into the Business Support tray



Business Support uplift the closed worksheets and then close the worksheet in Whitespace (This maybe 2 or 3 days after the job was completed



#### The Process With All on Mobile

Customer books/pays for a service on line (Fife.gov)

Information is processed and fed into Lagan

Lagan feeds this information into Whitespace

Whitespace prioritises the job and allocates the work to the appropriate role (Supervisor, Recycling Advisor etc)

The role allocates the (electronic) worksheets to the crew that will carryout the job



#### The Process With to All on Mobile

Crew completes the job, submits the electronic worksheet which is immediately updated in Whitespace.

Supervisor/Management provided with route/job progress







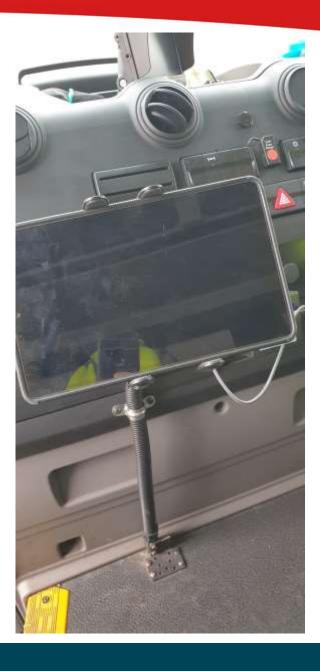
#### **Outline**

- The All On Mobile solution allows users to receive/complete forms and jobs on a mobile device.
- Provides up to date digital domestic round information:
  - Streets (Jobs) within a route (lists & maps), downloaded daily (02:00)
  - Single or multiple Crews can log into the same round
  - Assisted collections
  - Navigation function
  - Worksheets (adhoc jobs) (Bulky uplifts, missed bins, Assisted Collection assessments etc)
  - Provides an exemption function Crew can report back (Contamination, no access etc)
  - Provides live route progress for Supervisors/Officers











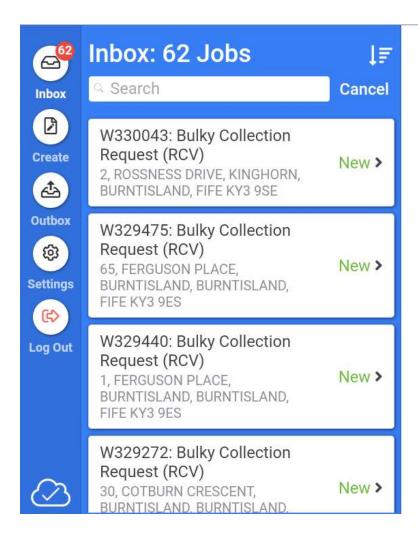
#### Version 5.0.1.30



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This system is for official use only by logging on you agree to the terms and conditions.



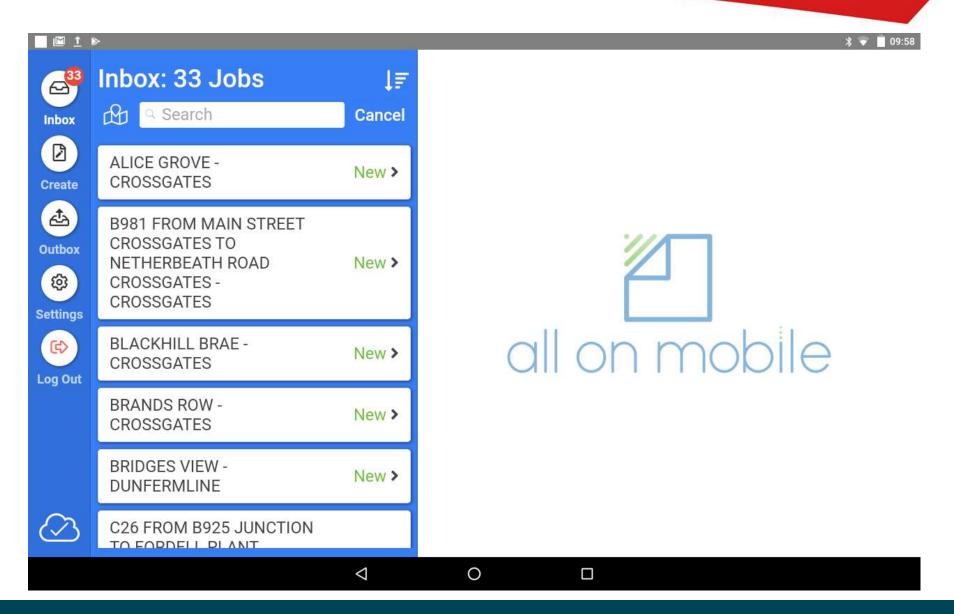




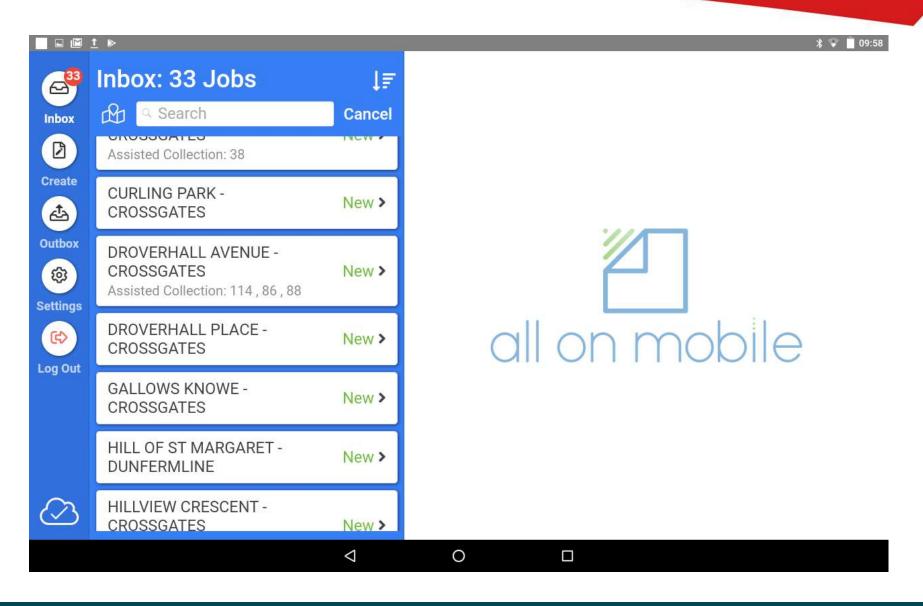


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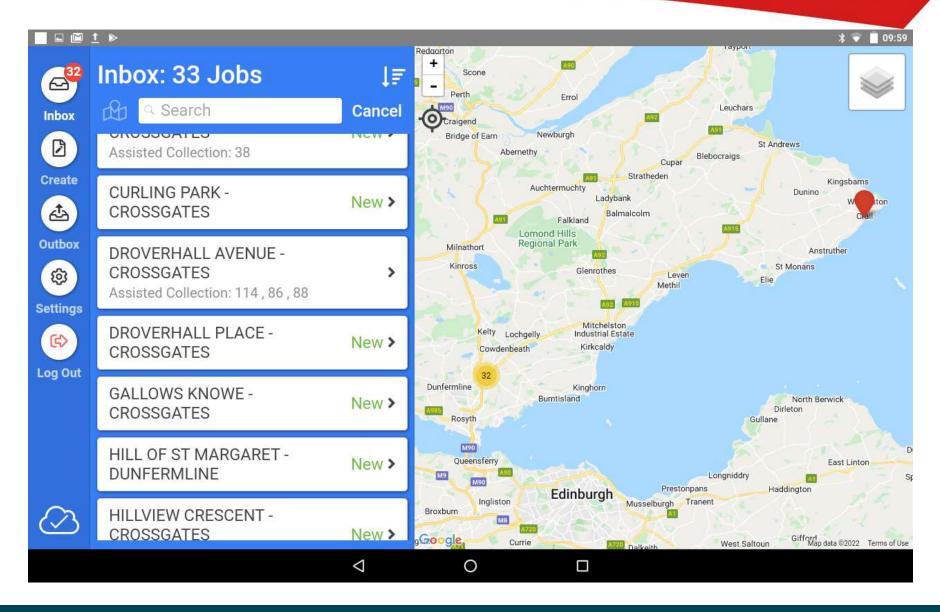




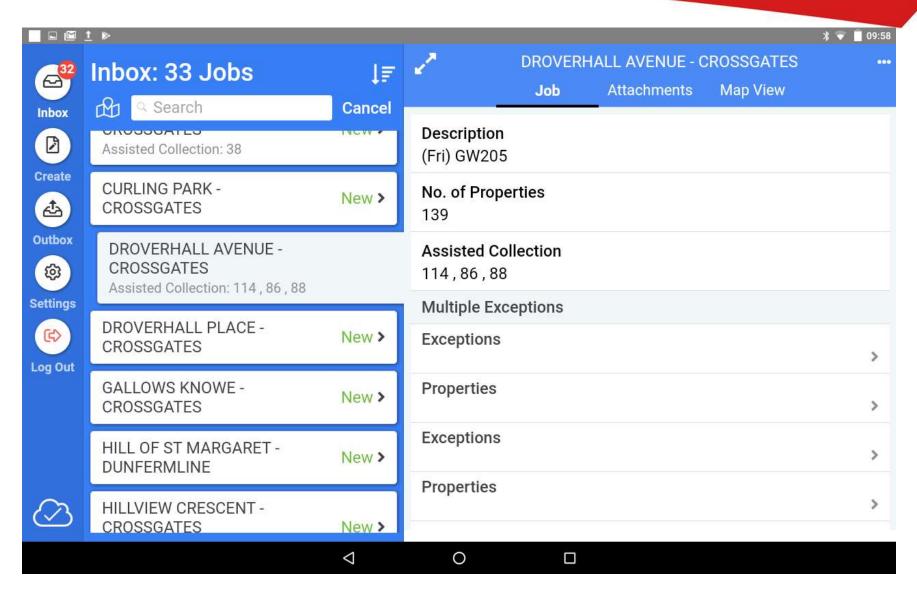




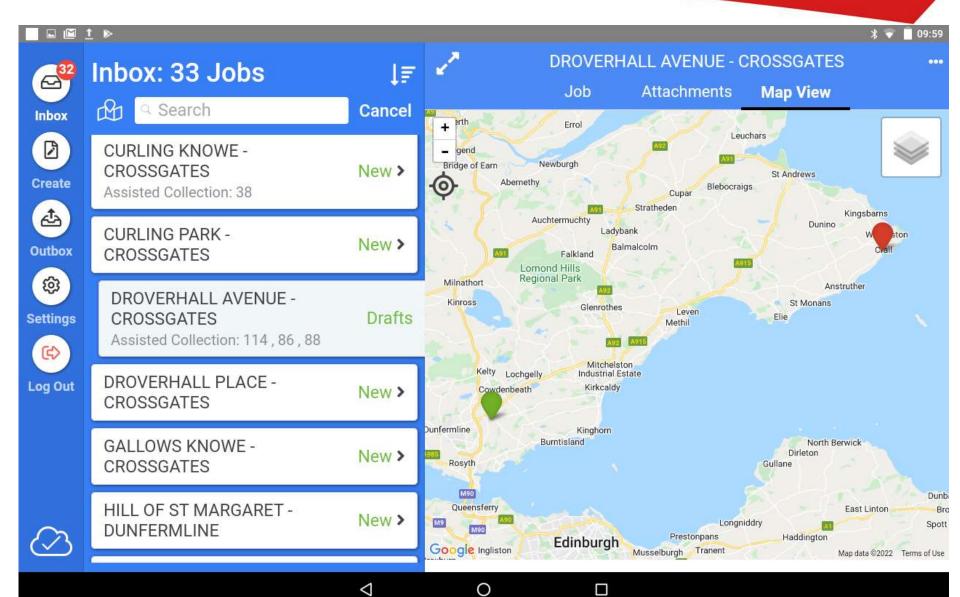




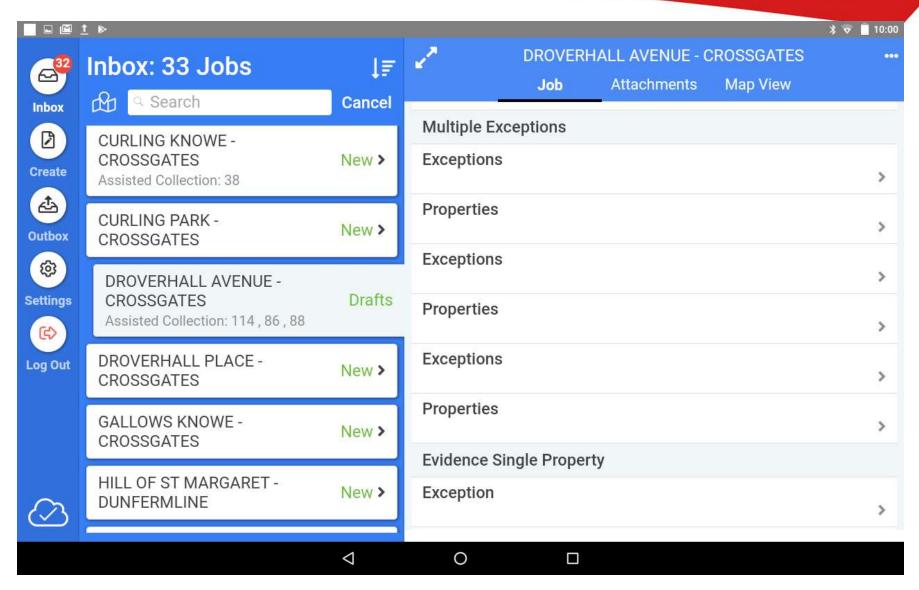




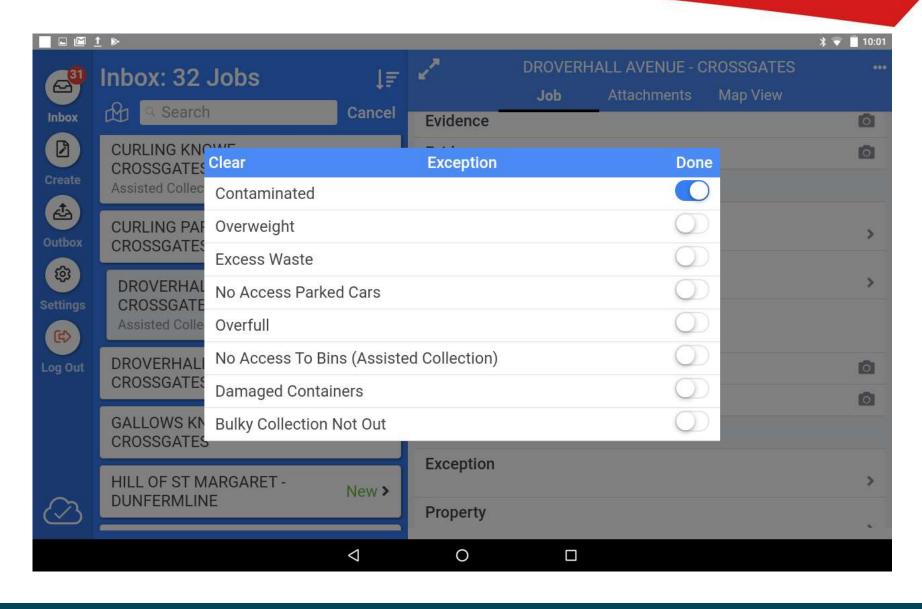




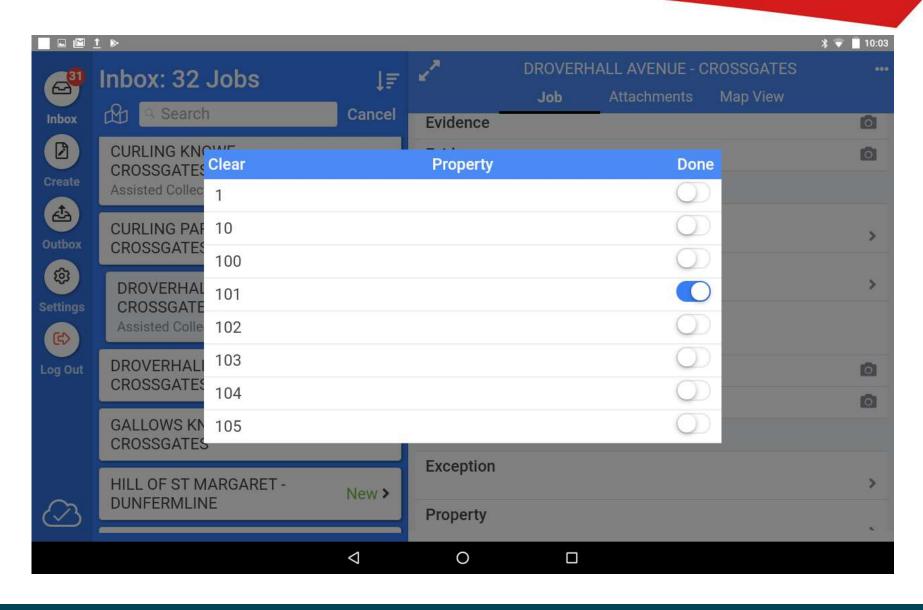




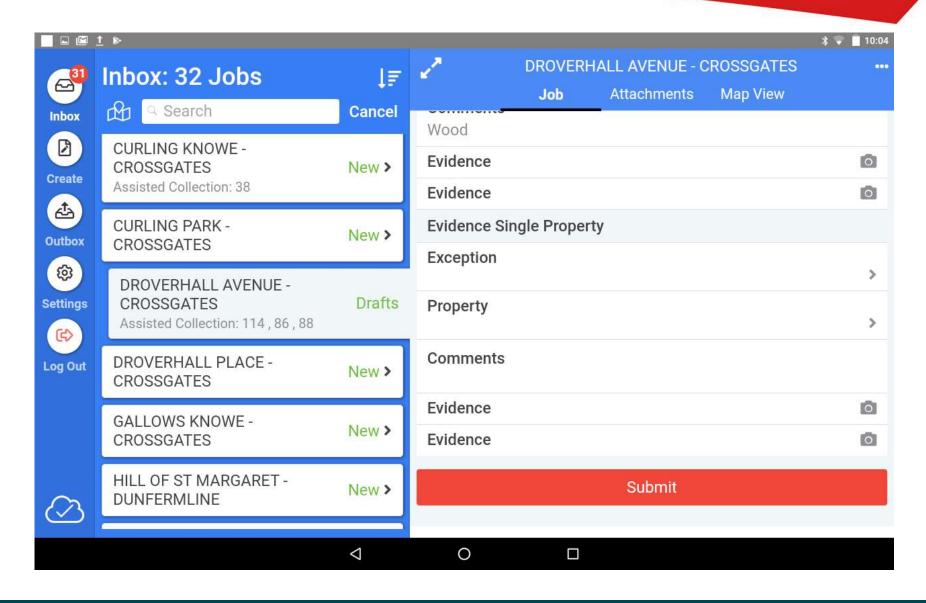




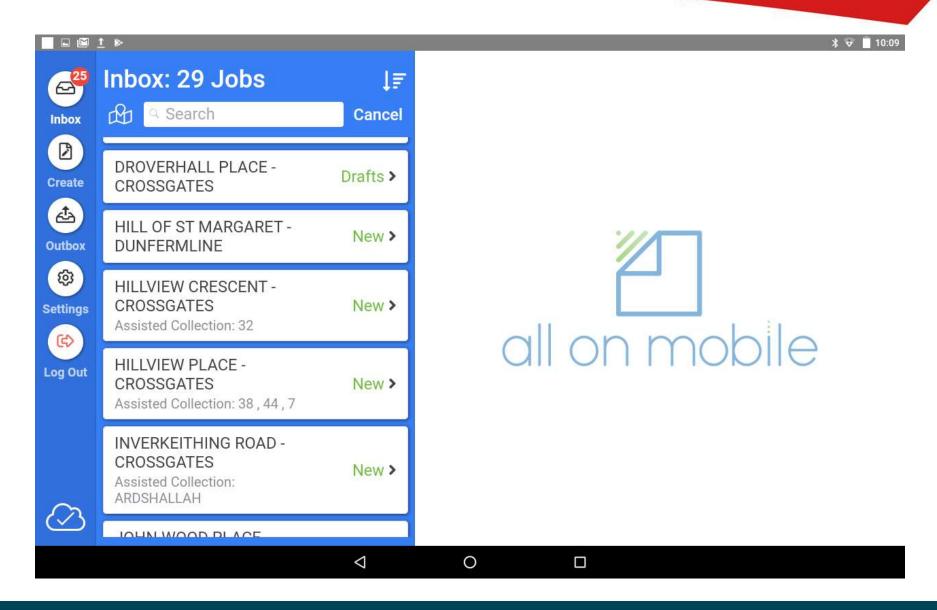




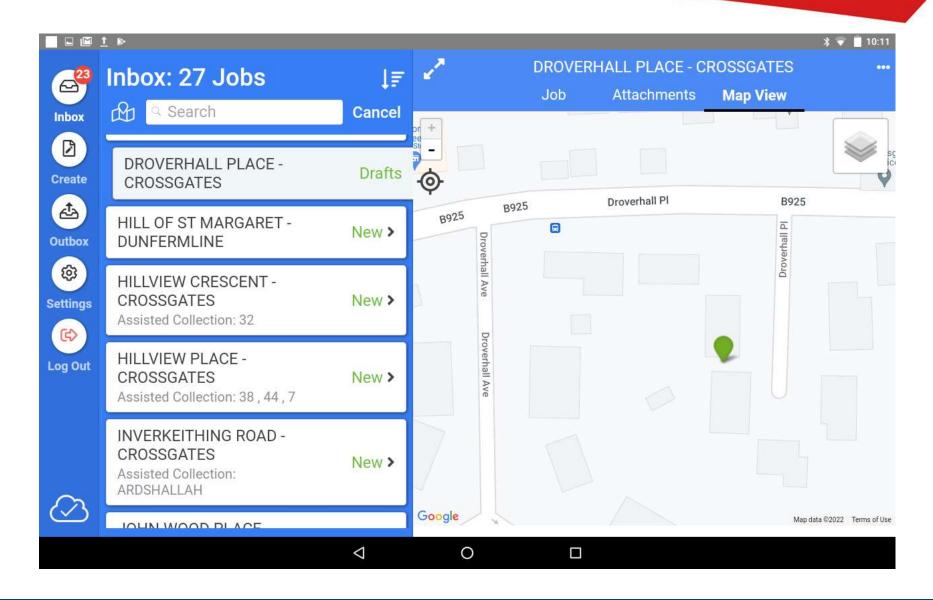




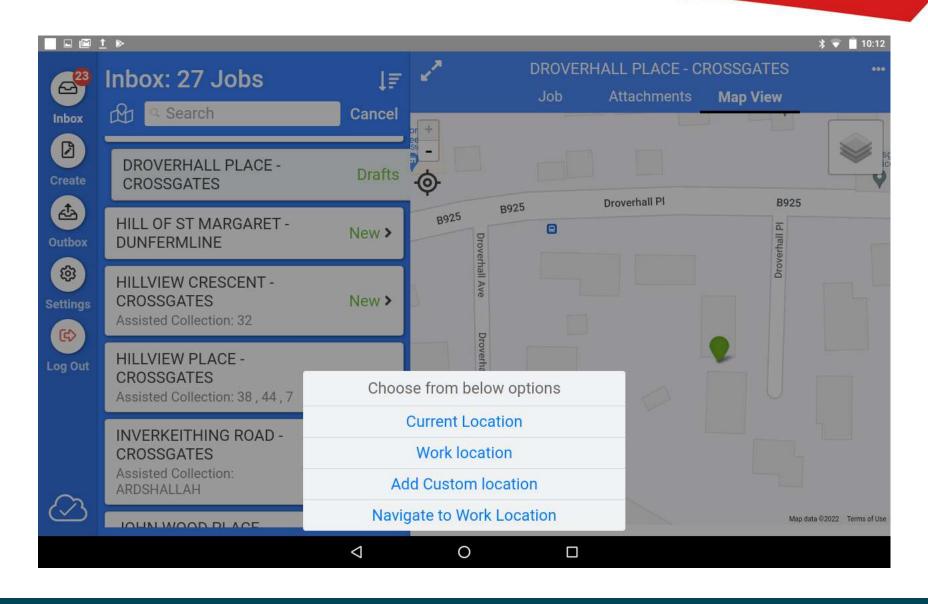




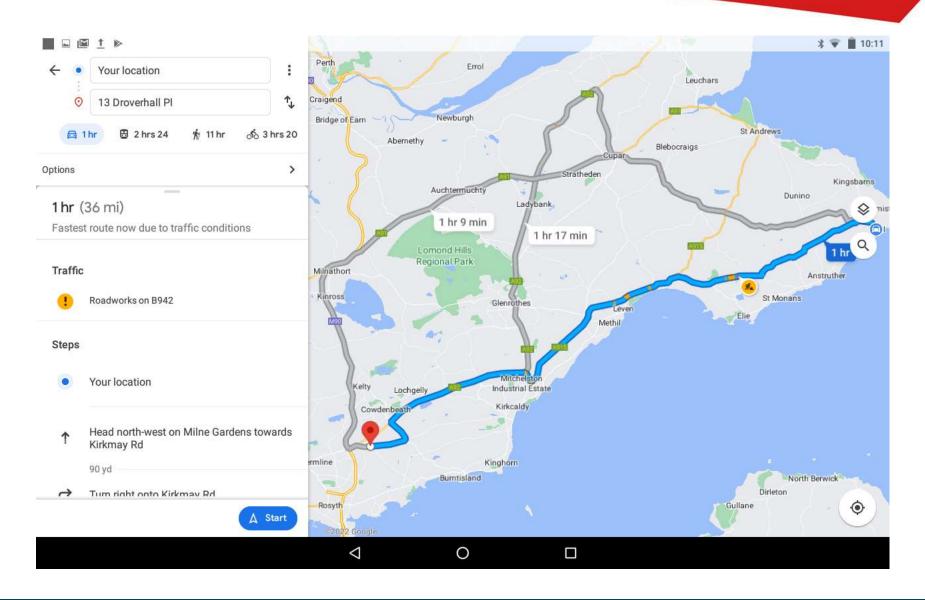




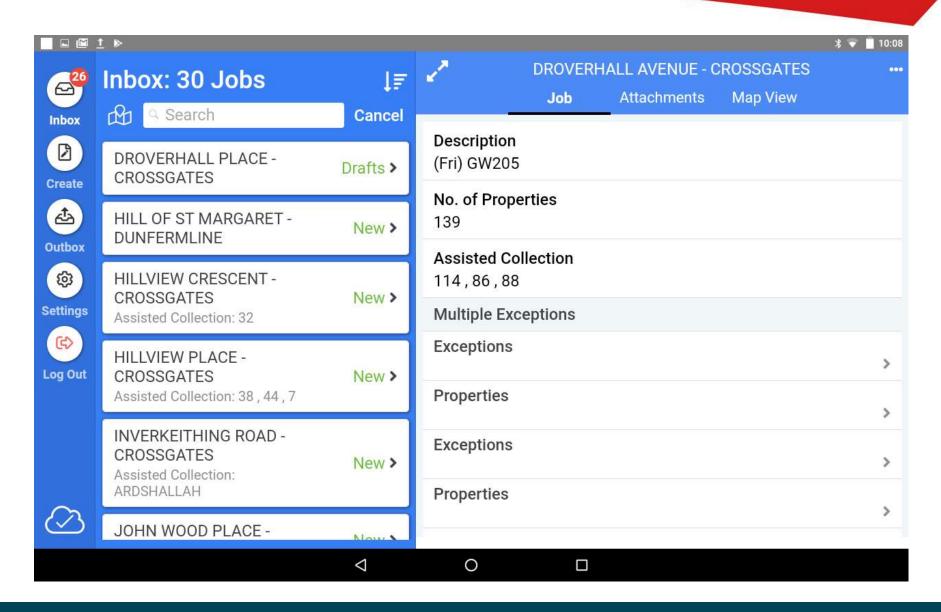
















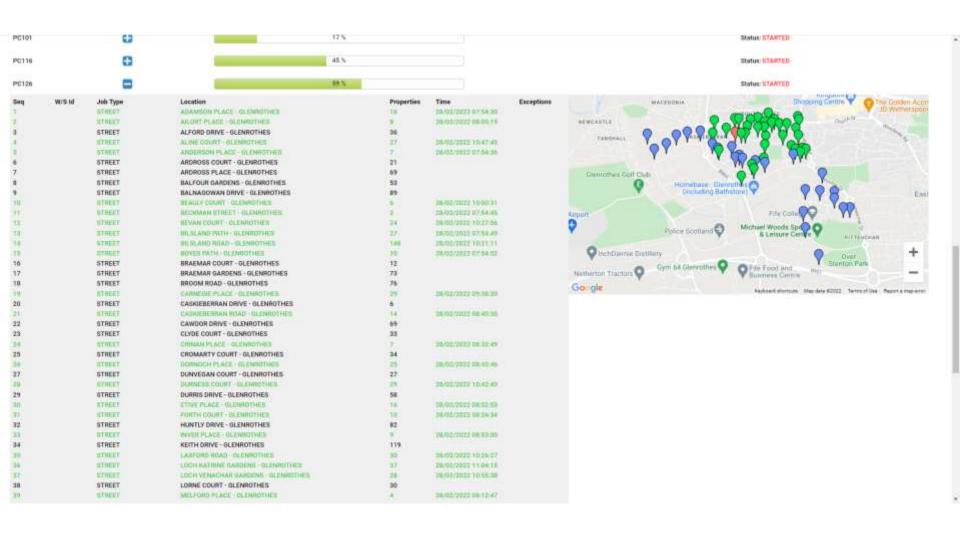


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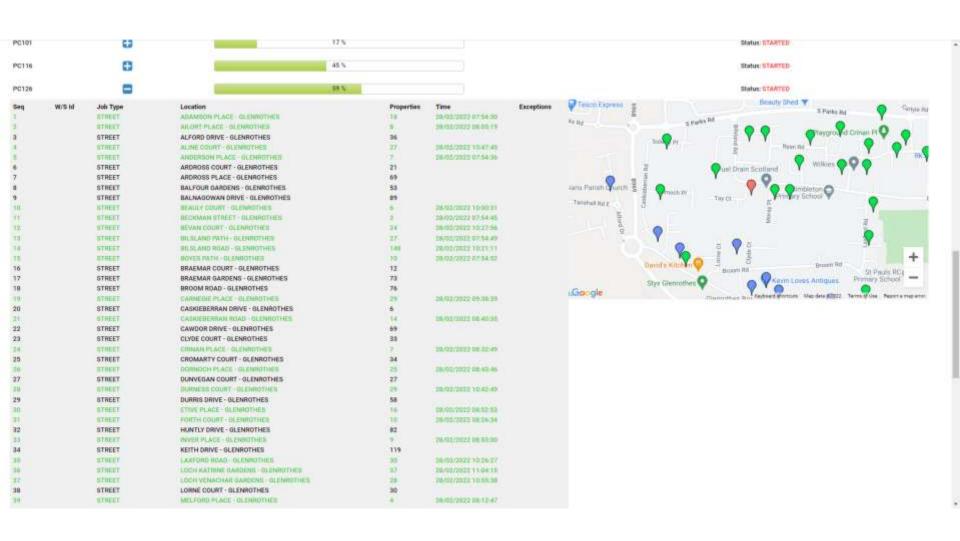
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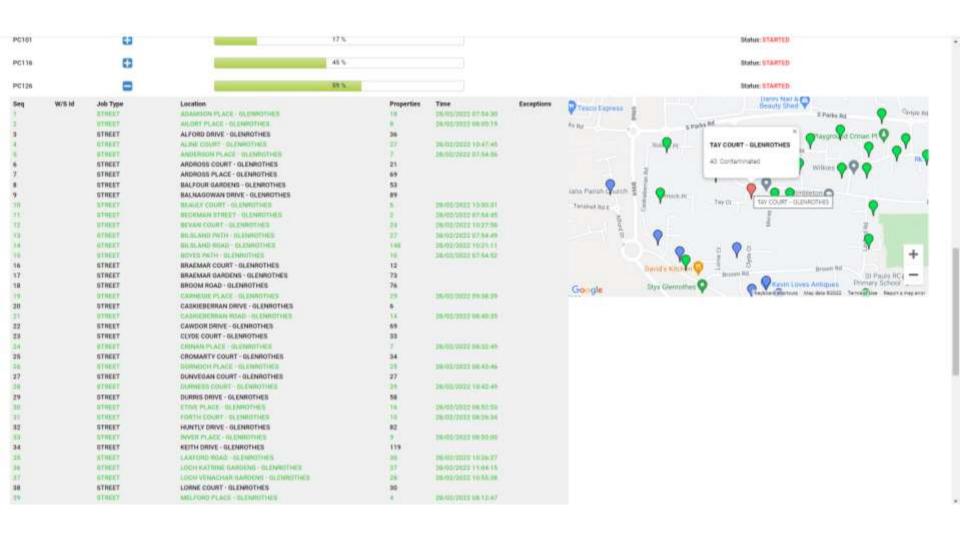








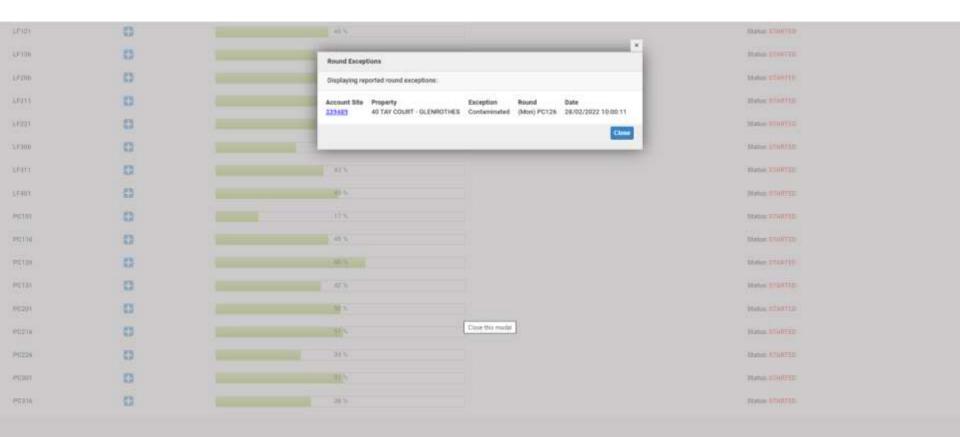






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59	STREET	WOODS DRIVE - BLENROTHES	25					
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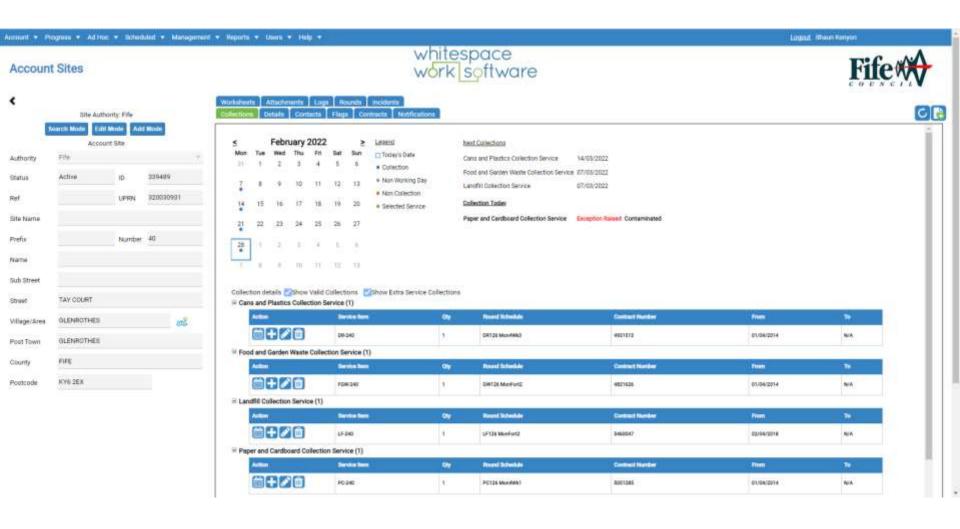




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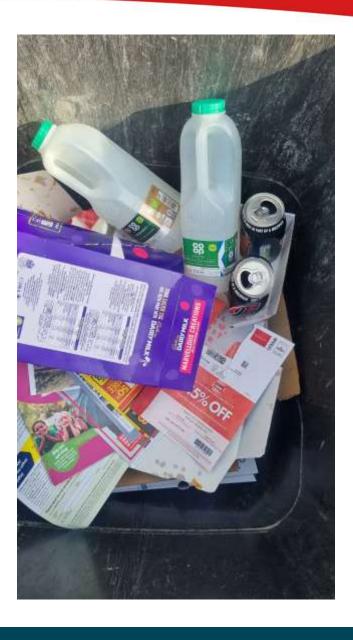














### **Key Factors**

- Essential to get Crew buy in from the beginning of the project.
- Provide a user friendly, in house training package to all users
- Ensure the round information is accurate
- Identify how the tablet will be used: Secured in a cradle in the cab (comply with the law, using a handheld device whilst driving) or free standing.
- Extensive user acceptance testing



#### **Benefits So Far**

- 100% reduction in paper worksheets (over 52000 per annum)
- Over 15% reduction in missed Assisted Collections
- One source providing up to date live round information which enables crews from other areas to provide assistance reducing service failure.
- Crews ability to close jobs/report exceptions are immediately recorded on Whitespace which provides round progress



#### **INTEGRATED CAMERA SYSTEM**





#### **History**

- 2014 First Hard Drive Based 360 degree camera
- 2017 Hard Drive with Web Based App
- 2019 Move To CMS Supatrak combined Telematics and Camera System

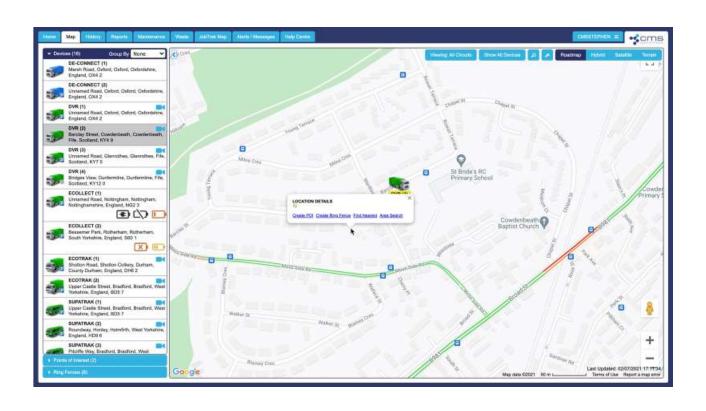


#### **Integrated Camera System**





### **Map View**





## **Real Time Viewing**





# **CMS Supatrak Live**

www.supatrak.com



#### **Benefits**

- No Need to remove hard drive from vehicle
- Instant downloading following incident
- Live feed from vehicle
- Remote supervisor checks
- Ability to check for missed bins



#### **Examples in practice**

Snow slip.mp4

FOI request.mp4

near miss 1.mp4

near miss 2.mp4

customer complaint.mp4