

# Integrating EVs into Emergency Service Despatch

Greening Blue Light Fleets  
**September 2025**







# About FPS

We develop technologies designed to synchronise the whole EV fleet and charger eco-system from planning through to real-time operations.

***FPS. With you all the way***

JOHN LEWIS  
& PARTNERS

WAITROSE  
& PARTNERS

Sainsbury's

Wincanton



South Western  
Railway

Crown  
Commercial  
Service  
Supplier



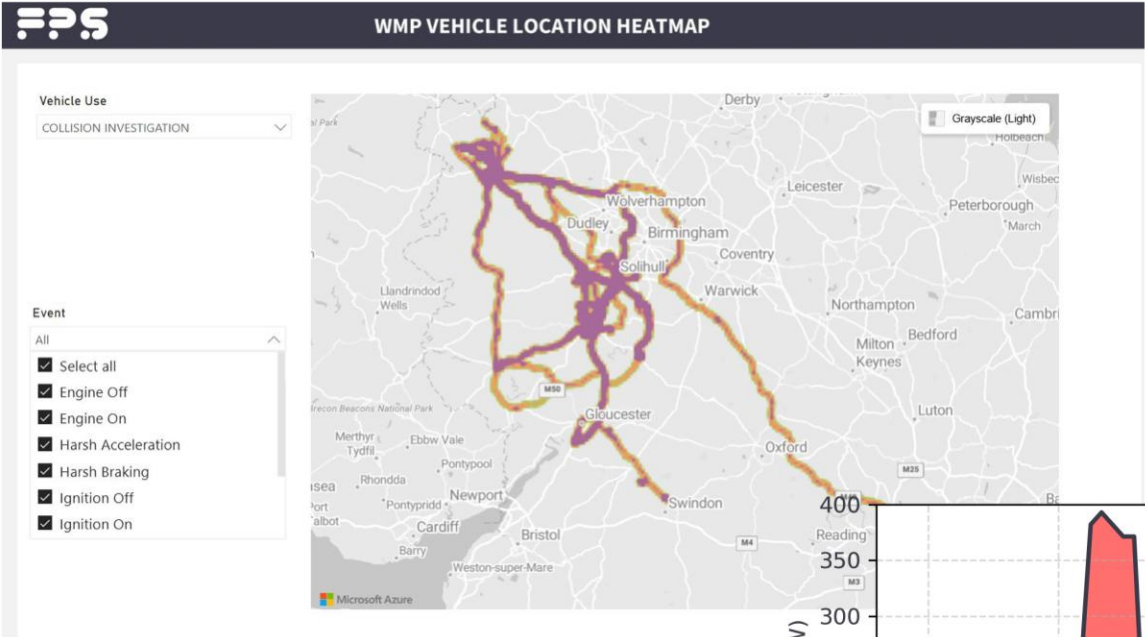
# Why Response Vehicles are “Hard”

- Performance and payload requirements
- High availability requirements

Lack of Suitable Vehicles

Extensive infrastructure requirements

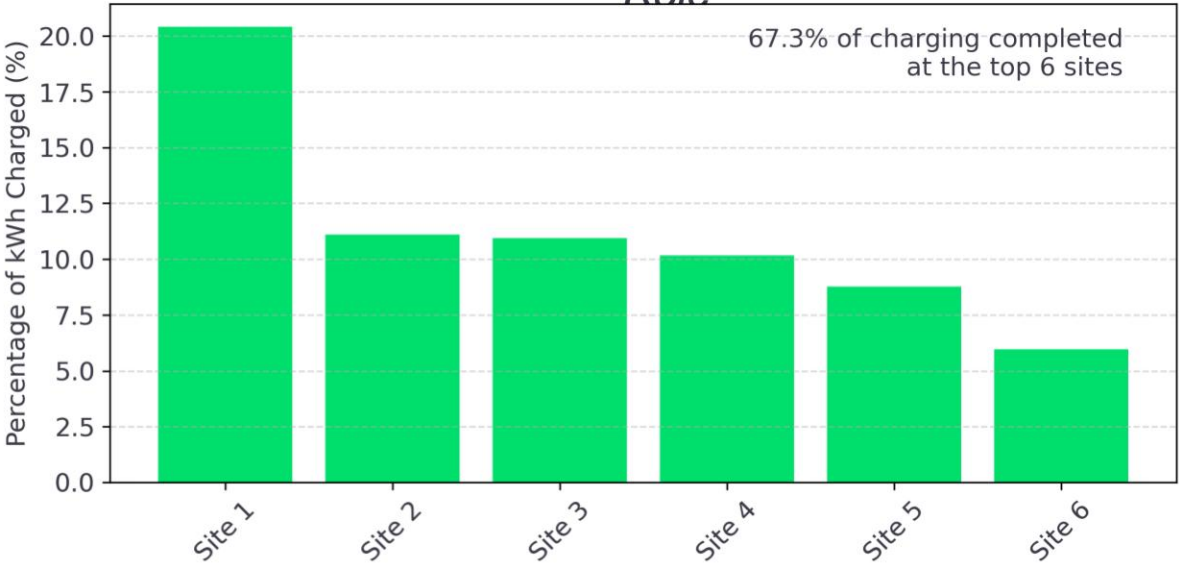
# Data and analysis uncovers the diversity of charging demand



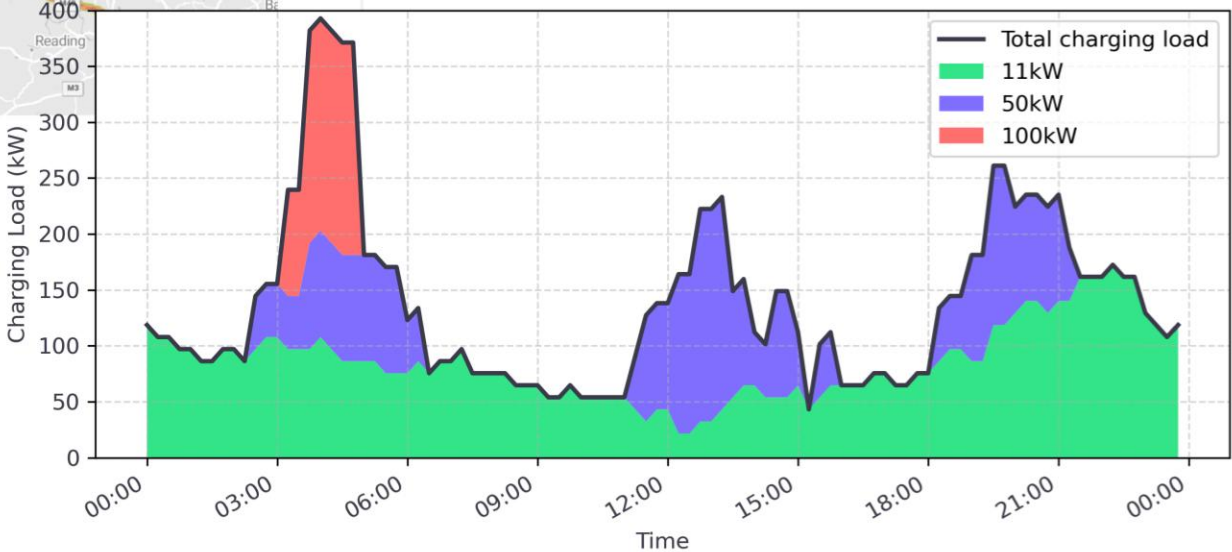
Location Heatmap with Filters for Vehicle Role and Telematics Event Type



Top 6 Charging Sites for a Specific Vehicle Role



Max charging energy of 2945kWh on 2024-11-26

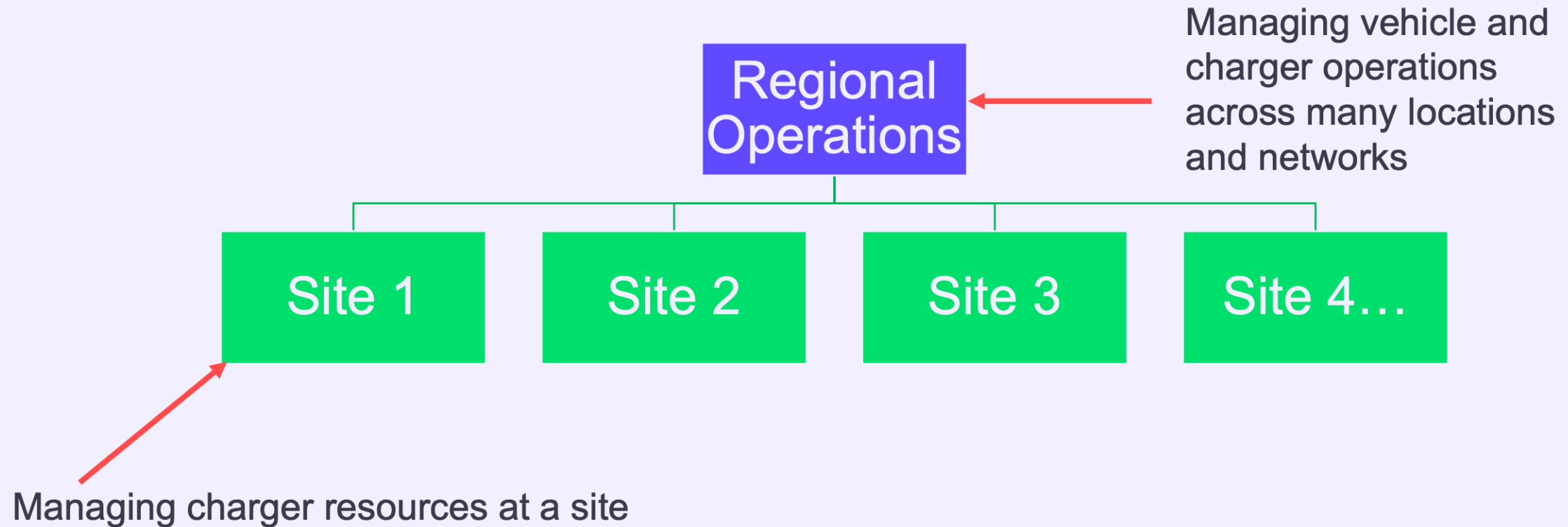


Estimated Peak Charging Day for a Specific Vehicle Role

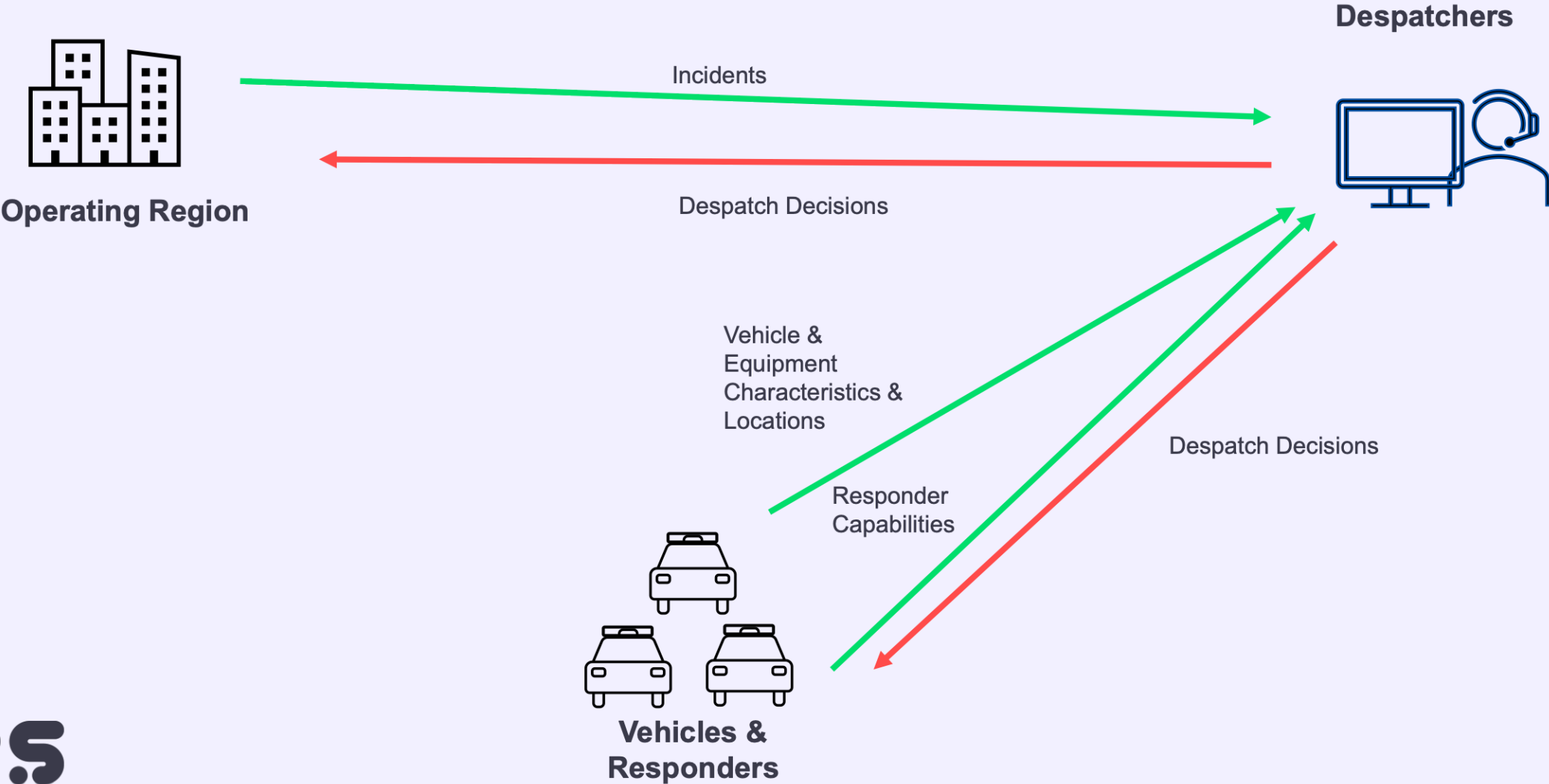
**When EVs are deployed, there are two active management problems...**



# When EVs are deployed, there are two active management problems...

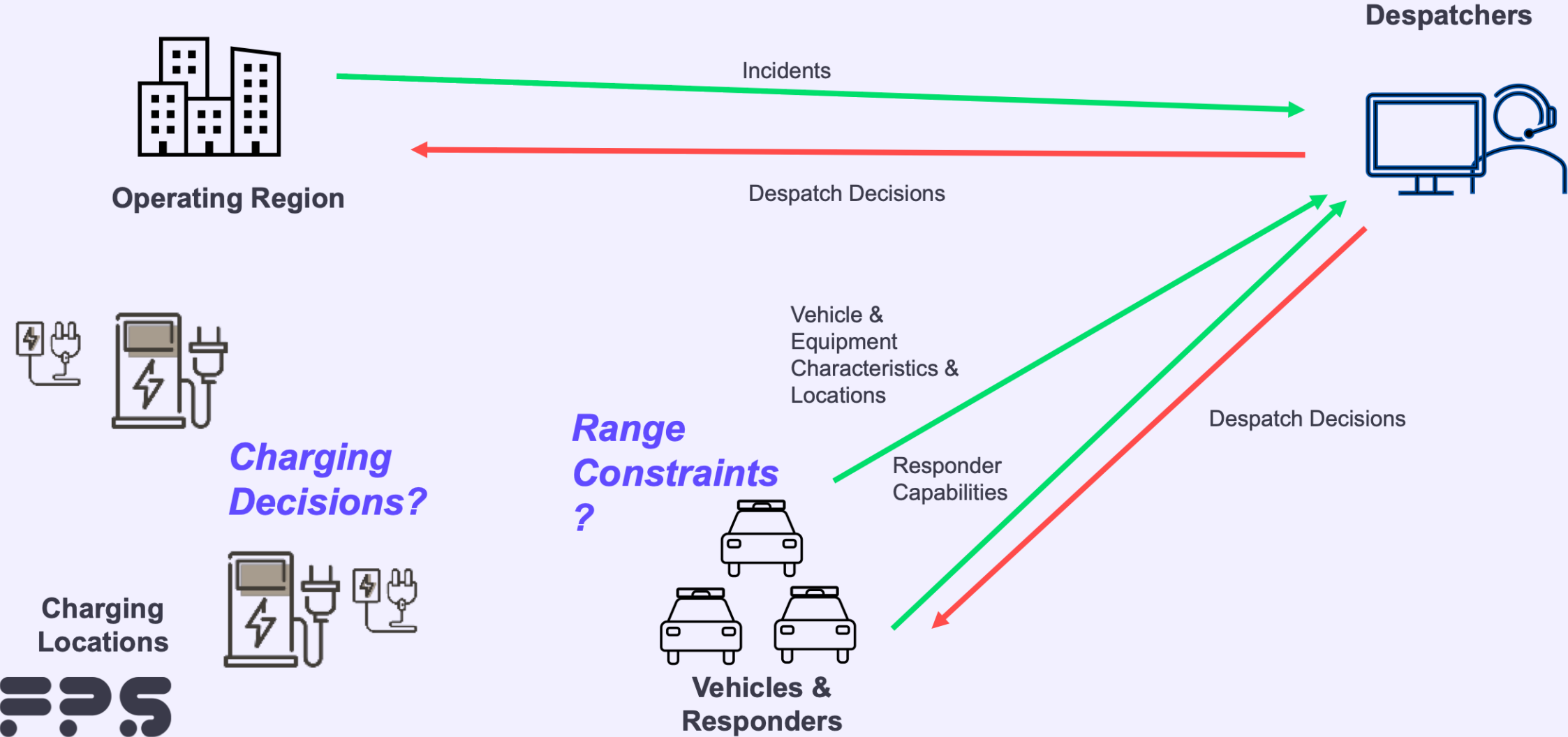


# Current Despatch



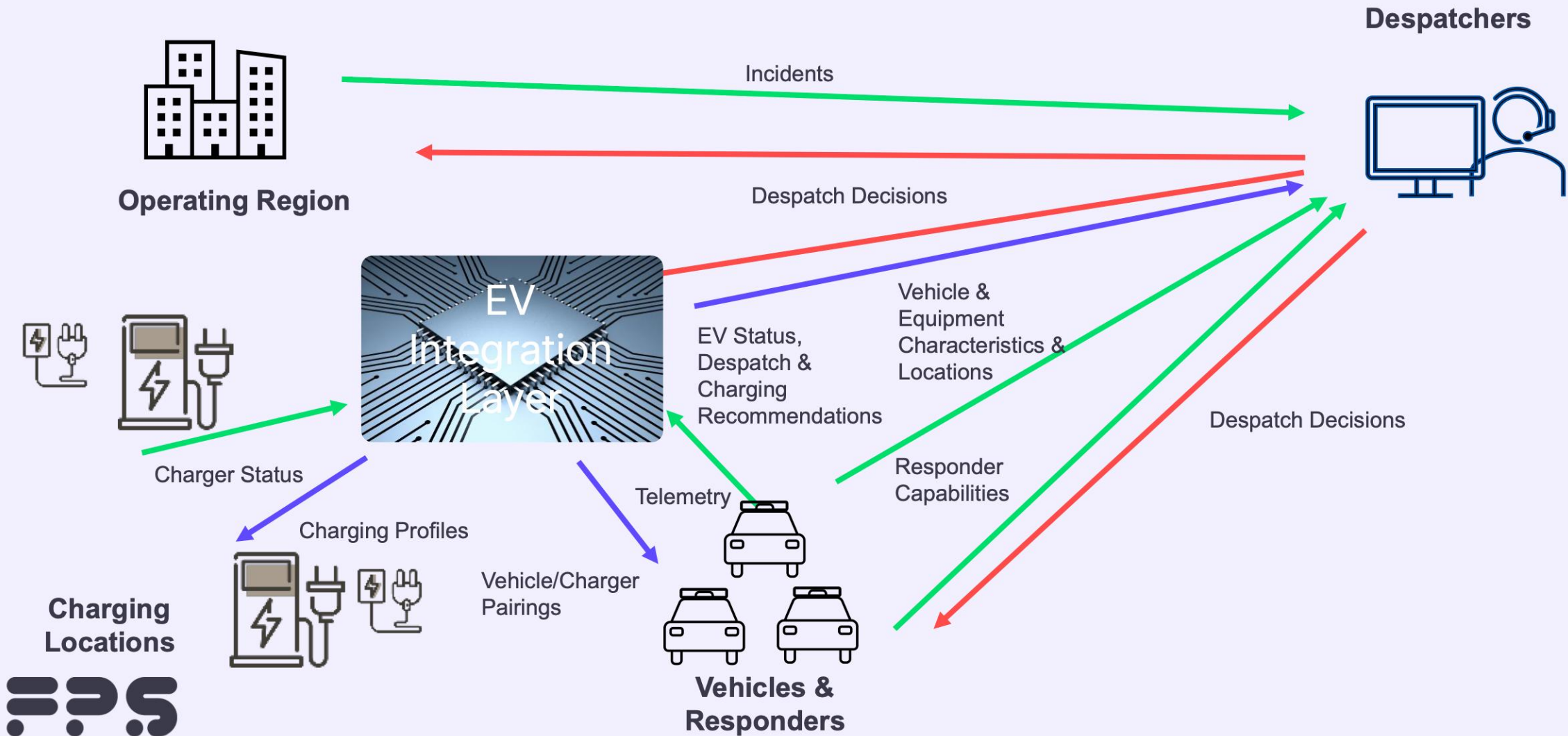


# Electric Despatch?





# Automation to Support Human Operators



# How might it look?

## Current Example Dispatch Solution

Modified Vehicle/Responder Capabilities

▼ Available (8)

PD | AREA1

1A10		50kWh	CL	7m 21s
1A11		65kWh	CL	7m 15s
1A12		20kWh	CL	7m 9s
1B10			CL	6m 38s
1C11			CL	4m 49s
PD   AREA2				
1B21			CL	5m 12s

CommandCentral CAD

Units (18)

Available (8)

PD   AREA1	1A10	CL	7m 21s
	1A11	CL	7m 15s
	1A12	CL	7m 9s
	1B10	CL	6m 38s
	1C11	CL	4m 49s
PD   AREA2	1B21	CL	5m 12s

Assigned & Busy (10)

1A20	AS	7m 0s
1A21	EN	6m 53s
1A22	AS	6m 44s
1B11	EN	5m 56s
1B12	EN	5m 31s
1B20	AS	3m 56s
1C10	EN	1m 3s

Pending Incidents (3)

+ Incident

#s7YP VANDAL 3232 S 400 E

#0062 911 - H 2350 Malaga Ave, Santa Clara (AREA1)

#0061 TOW 8229 S Main St, Midvale

#0060 CIVIL Violent to police 515 N Main St, Salt Lake City (AREA1)

Incident description: All the cars on the street were keyed sometime during the night.

Inc. type: VANDAL

Reporting party role: INITIAL CALLER

Reporting party name: Cameron Kilgore

Agency: POLICE DEPARTA

Area: AREA1

Source: 911

Address: 3232 S 400 E, Salt Lake City

Additional address information: Apt 12

Callback number: (456) 897-8293

Map: 3232 S 400 E, Salt Lake City

Active Incidents (7)

#0063 MVA - INJY 532 S Willow Pine Ln, Layton (AREA2)

#0056 ASSIST 1311 S Green St, Salt Lake City (AREA1)

#0058 SUSP 2020 Ring Rd, Layton (AREA2)

#0059 WELFARE 1550 Hunt Creek Dr, Moab: Apartment 23A (AREA2)

#0053 DISORD 736 W North Temple, Salt Lake City (AREA1)

Incidents with Energy Estimates

Pending Incidents (3)

+ Incident

#s7YP VANDAL 3232 S 400 E

Response Energy 45 kWh

#0062 911 - H 2350 Malaga Ave, Santa Clara (AREA1)

Apr 20 5:49 pm

Normal Energy 20 kWh

Source: Motorola



## Making it Work

- ✓ Live vehicle States of Charge
- ✓ Dynamic estimates of incident response energy requirements
- ✓ Charger allocation
- ✓ Charge stop planning (where, when and how fast)
- ✓ Systems integration...



# Next Steps....

		New Customer Onboarding Effort	Product Development FoaK Trials
	Current Logistics Deployments	Managing Charging of Non-Responding Vehicles	Full Despatch Demonstration
Live Vehicle SoC			
Incident Energy Forecasts	But Limited Speed Profiles		
Charger Allocation			
Charge Stop Planning			
Systems Integration	But Logistics Systems		



Emergency Service Fleets being recruited now



## End-to-end support for fleet electrification

### FPS Operate

To manage EVs and infrastructure in real time

### FPS TRU Manager

To unlock fuel savings

### FPS Book

To share charging infrastructure



# Michael Ayres

## Managing Director

[Michael.Ayres@flexpowerltd.com](mailto:Michael.Ayres@flexpowerltd.com)

[info@flexpowerltd.com](mailto:info@flexpowerltd.com)

+44 (0) 1342 360240

Flexible Power Systems

[www.flexpowersystems.com](http://www.flexpowersystems.com)

