

## UC#1 iRoute

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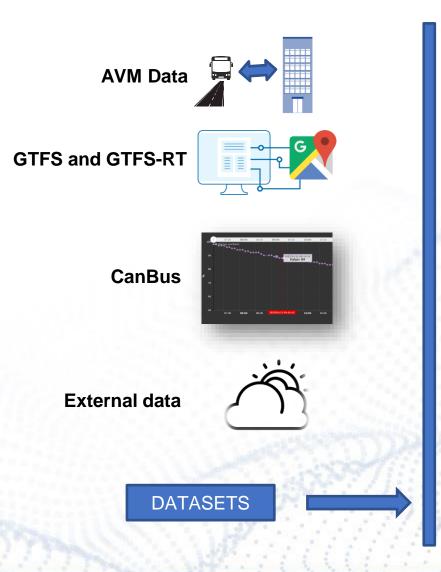
> MobiSpaces webinar 31 October 2023







# Mobispaces iRoute Use Case





**SHORT-TERM PREDICTION ON BATTERY LEVEL** 



LONG TERM PREDICTION ON **BATTERY LEVEL TO BUILD E-BUS SCHEDULES ACCORDINGLY** 

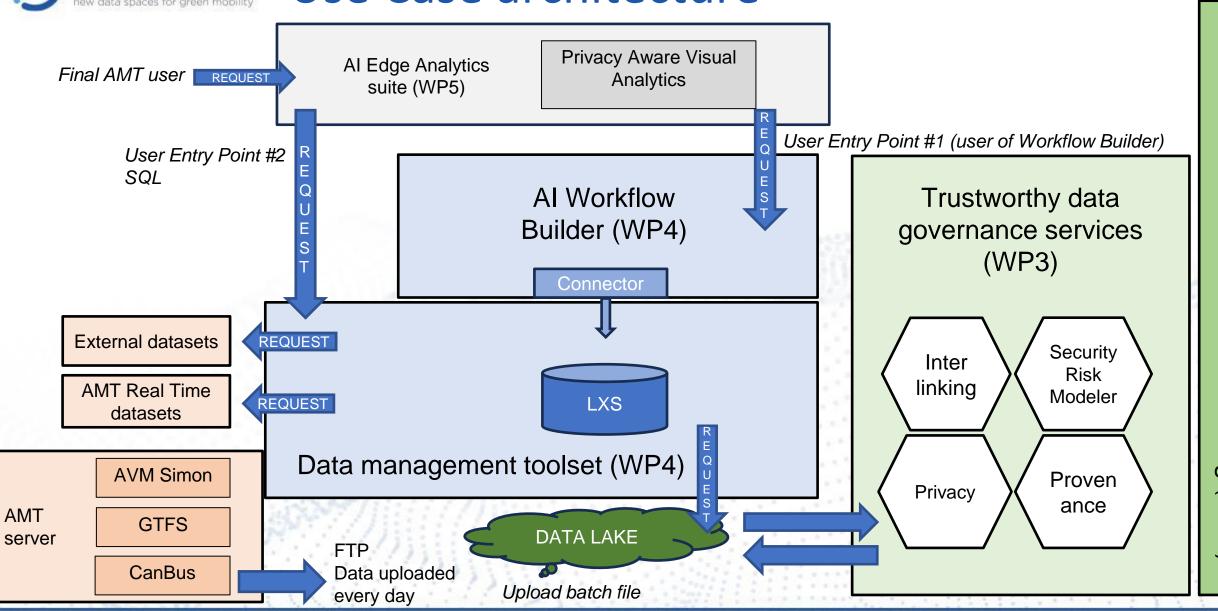
01	L31		ESCE	07.31 DA	MANG	USCITA	1:449
CAPOLINEA	ZONE DI TRANSITO		CAPOLINEA		ZONE DI TRANSITO		CAPOLIN
Parte			Arriva	Parte			Arriva
	1000		BAIRES		S.MARTIN		BORGORAT
				07.37	07.47		07.56
BORGORAT	S.MARTIN	TOMMASEO	DEFI	ERRAR	TOMMASEO	S.MARTIN	BORGORAT
08.06	08.13	08.23	08.34	08.46	08.56	09.03	09.12
09.25	09.32	09.41	09.52	10.04	10.14	10.23	10.32
10.40	10.47	10.56	11.08	11.17	11.28	11.36	11.44
11.55	12.01	12.09	12.21	12.32	12.42	12.50	12.58
13.07	13.13	13.21	13.32	13.42	13.52	13.58	14.06
14.15	14.21	14.30	14.41	14.52	15.02	15.09	15.17
15.28	15.34	15.44	15.55	16.05	16.16	16.23	16.31
16.42	16.49	16.58	17.10	17.21	17.32	17.40	17.50
18.01	18.07	18.16	18.29	18.38	18.50	18.58	19.07
19.18	19.24	19.32	19.43	19.53	20.03	20.10	20.17
BORGORAT	S.MARTIN	IN C.TORINO					
20,20	20,25		20,32				

**PREDICTION OF MALFUNCTION** 





BETTER TRANSPORTATION SERVICE





Data definition and preparation



Service execution

Bus Fleet and **GPS** data

### GROUP B

Service planning

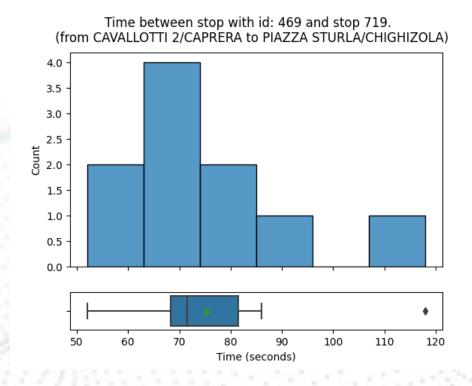
Maintenance data

### **GROUP C**

Data about passenger



Data analysis and preliminary experiments and calculations



**Mobispaces Webinar** 31st October 2023



# Prototype



The first prototype is being developed on 30 AMT 12meter electric buses that run on 3 different lines



# First activities and output expected

**AVM** data

CanBus data (daily behaviour of batteries)

Service planning data (GTFS)

External data

LONG TERM BATTERY ANALYSIS AND PREDICTION



OPTIMIZATION OF E-BUS SCHEDULES



# THANKS!

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