



Design PTX Data Model for Multiple Transportation Types

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Outlines

- The purpose of PTX project
- Data Model vs API
- Three Layers design in PTX
- Application case

The purpose of PTX project



Central government



Local government



Data Warehouse



Mapping Data



Government Data



Startup



Open Innovation



Creative Commons Data



Meta Data



Data Mining



Database



Data



Business



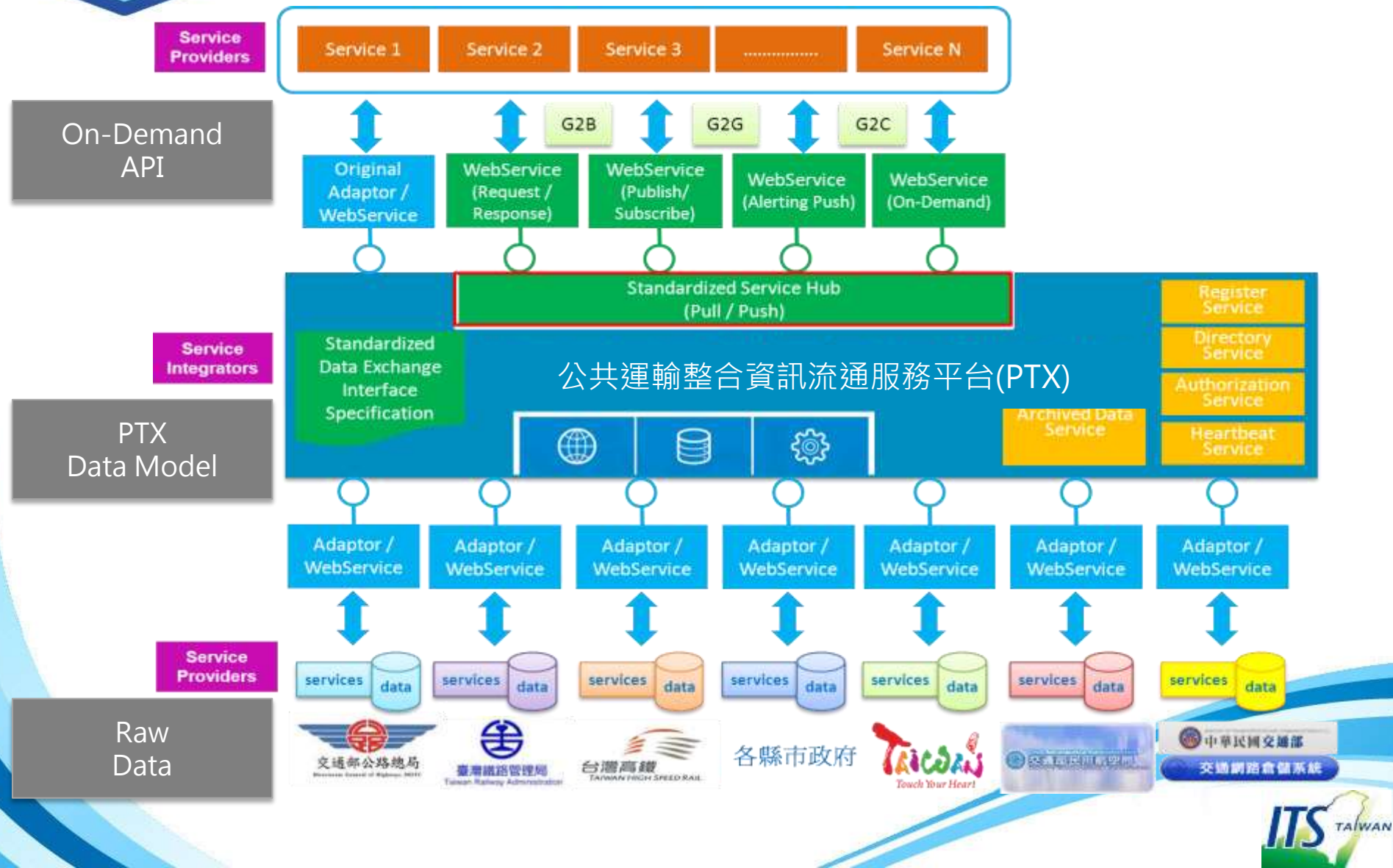
API



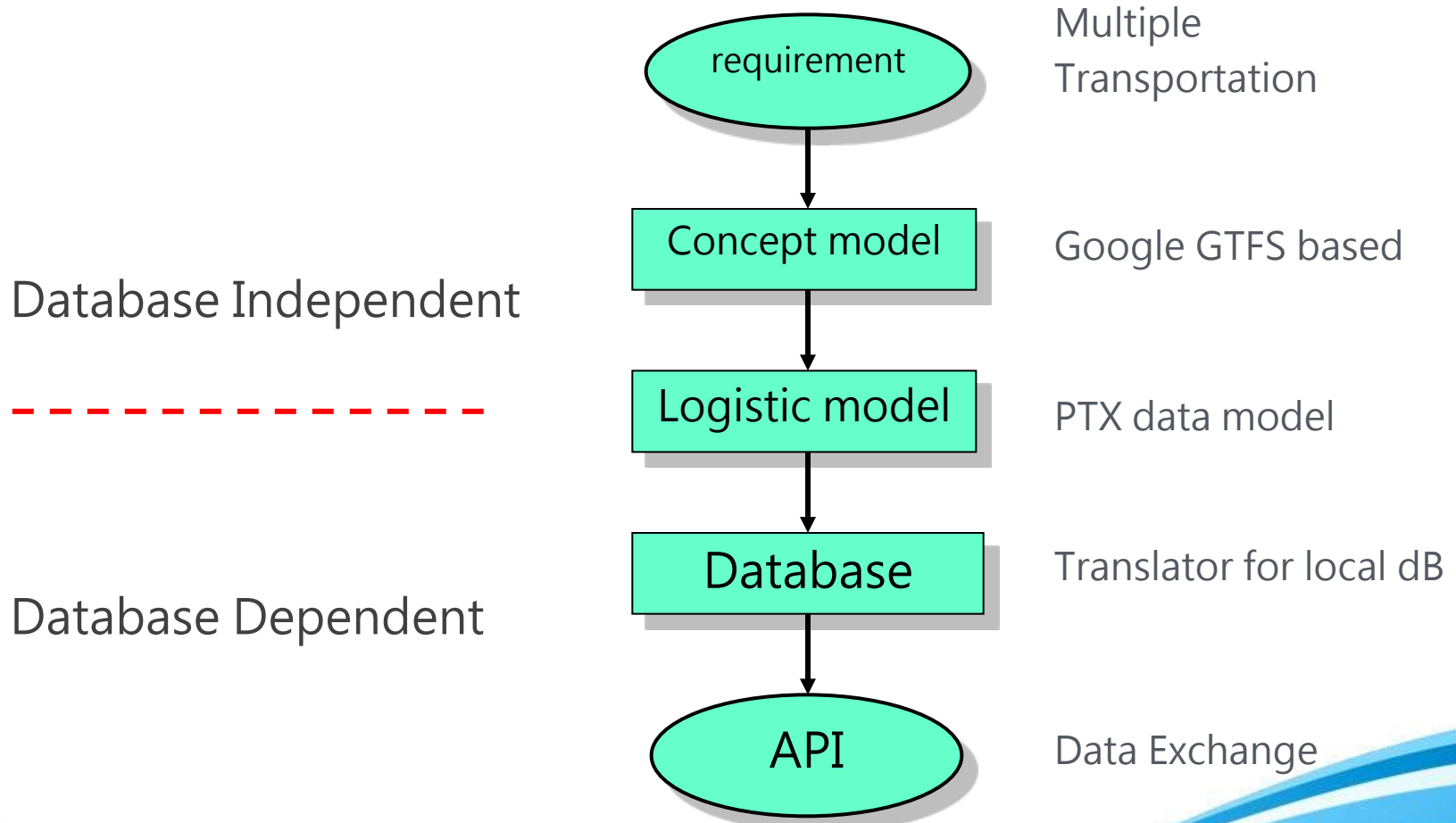
Open Data

Application

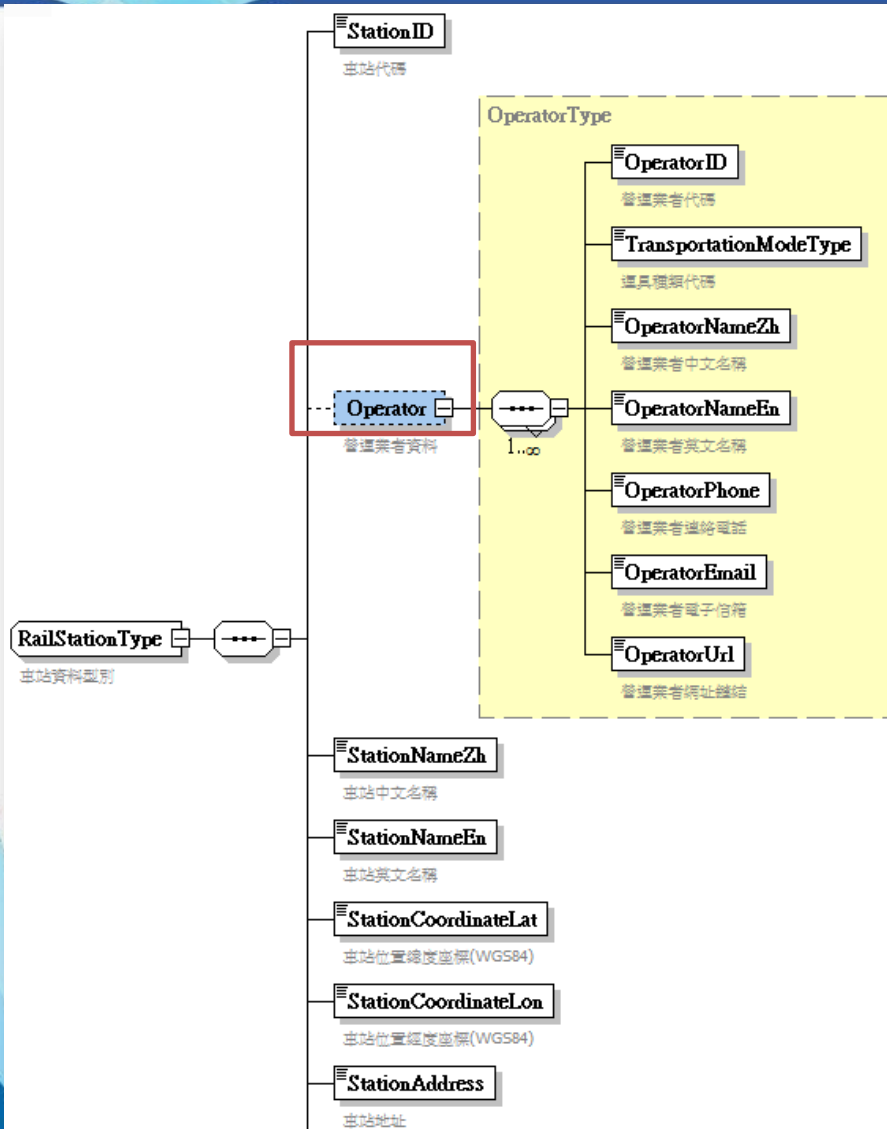
PTX System Structure



Data Model vs API

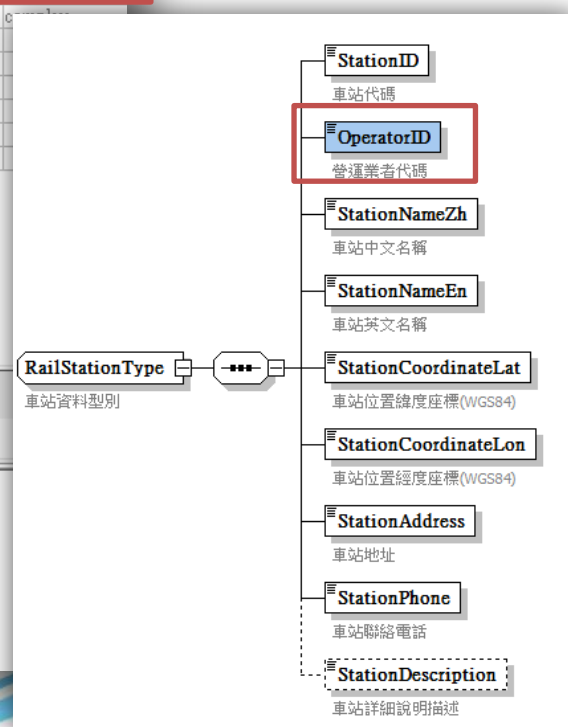


Example in Data Model & API

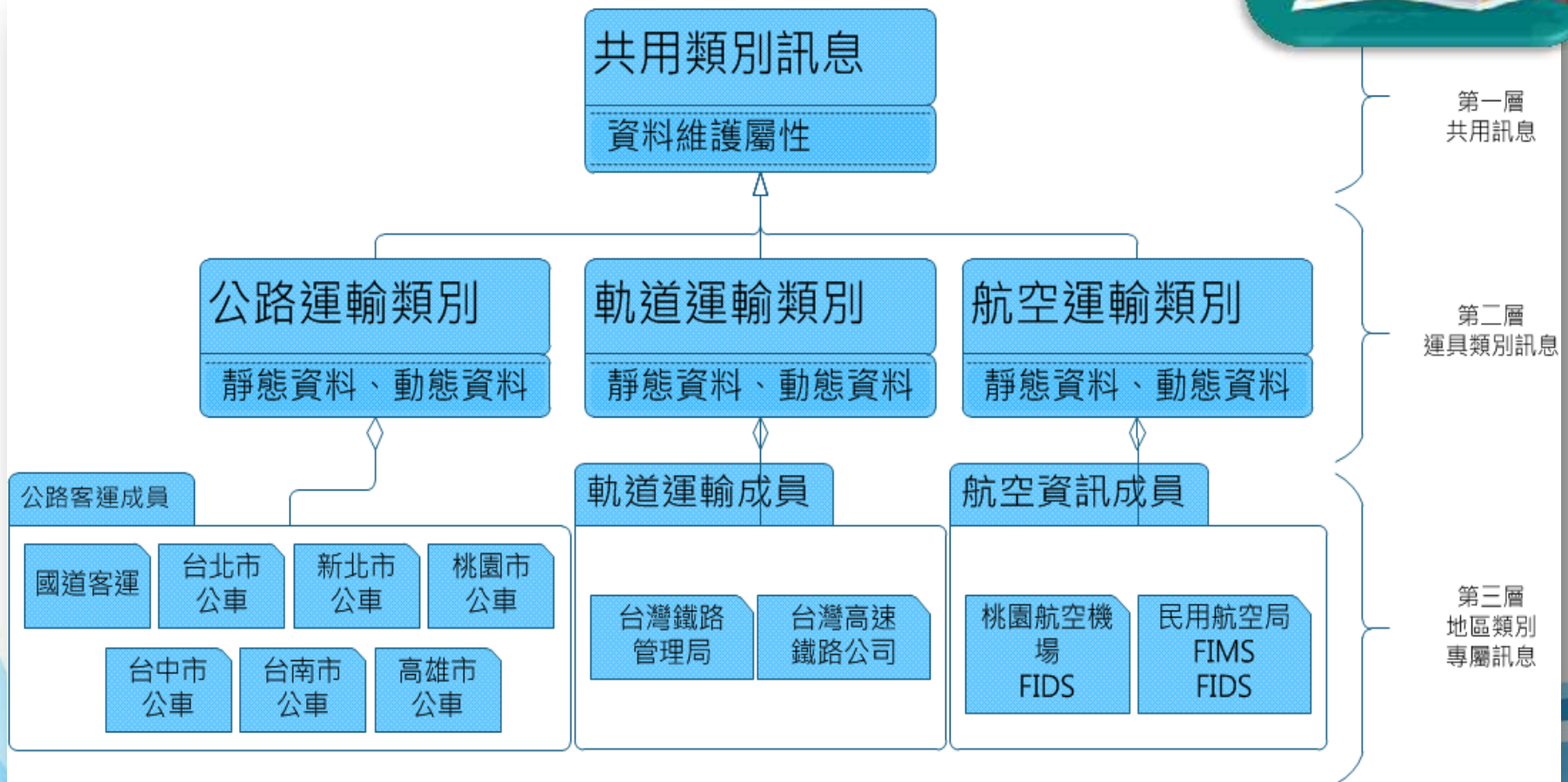


group (10)
complexType (74)
simpleType (118)

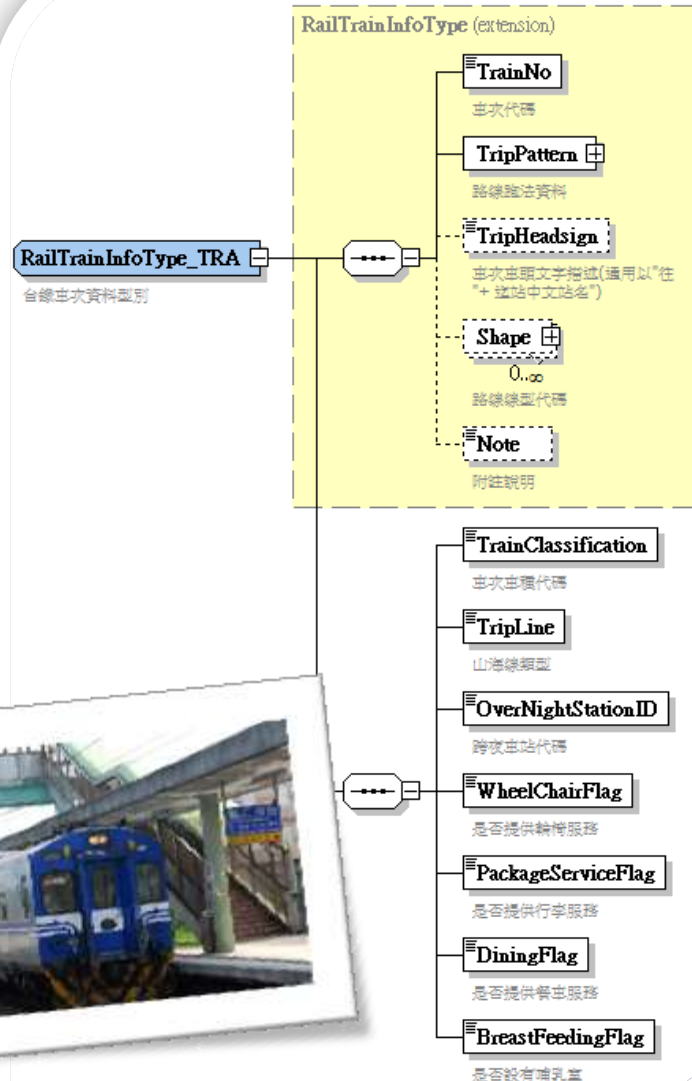
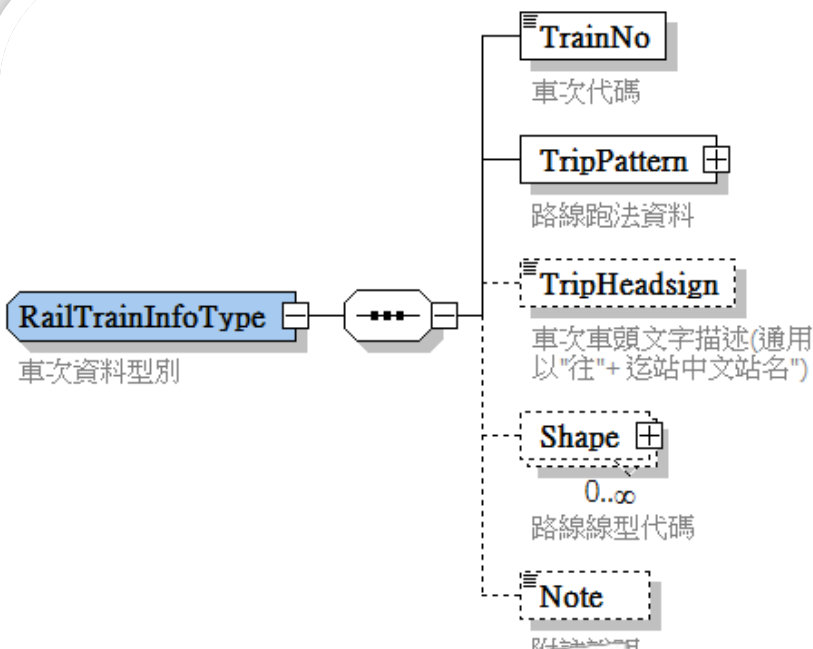
Globals	Namespaces
Details	
name	Operator
isRef	<input type="checkbox"/>
minOcc	0
maxOcc	1
type	OperatorType
content	
derivedBy	
mixed	
nullable	
block	
form	
id	



3 Layers Design in PTX Model



Extension for local attributes



Here comes the PTX Service



Data exchange tuition



Official WebSite

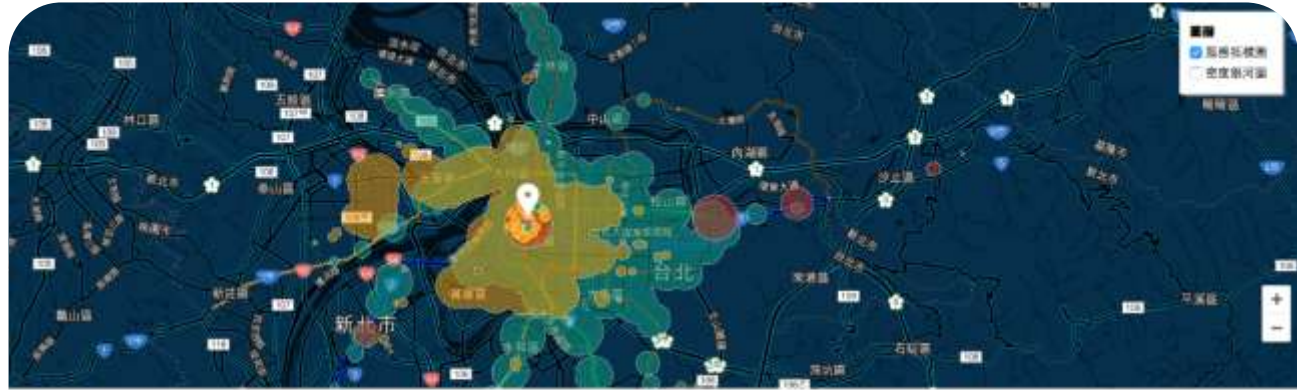


Swagger API service



Model Documents

Application Case



Application Case Interface Elements:

- 進行時間 (Travel Time):** 30 分鐘
- 出發時間 (Departure Time):** Mon Tue Wed Thu Fri Sat Sun, 12:00
- 交通工具 (Transportation Mode):** 公車 (Bus), 捷運 (MRT), 火車 (Train)
- 步行距離 (Walking Distance):** 600 公尺
- 站牌開關 (Station Signage):** 公車站牌 (ON), 捷運站 (ON), 火車站 (ON)

Microscope of Taipei Public Transit



Cooperate with PTX source

- Based GPS, online-Timetable
- Combine Bike, Rail and Bus.
- Update the historical database in 3 mins.



Web Design

Service Ranking

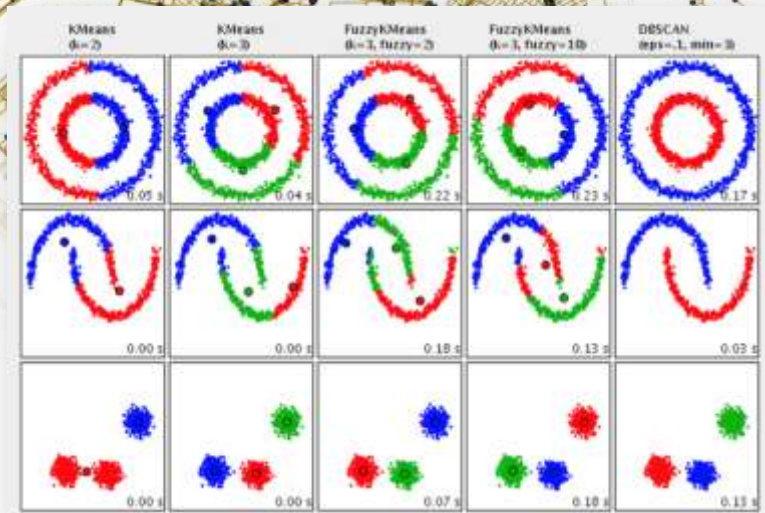
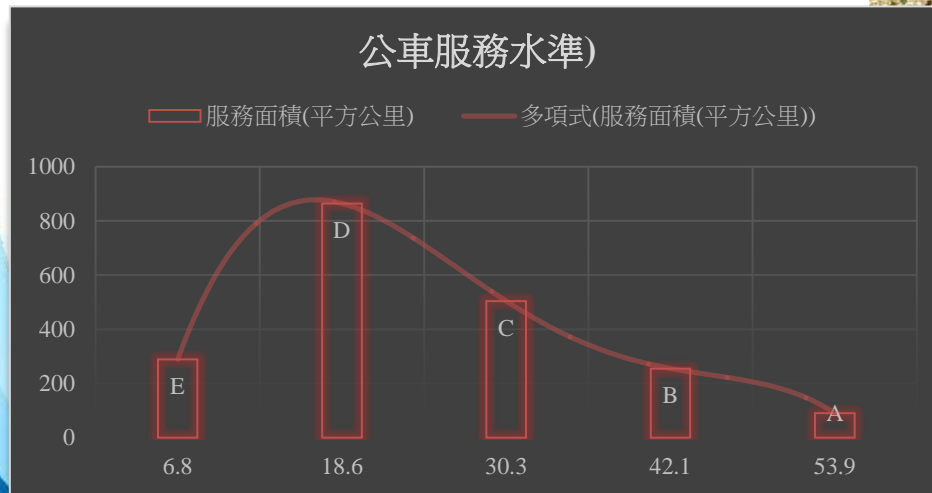
MapView

Personal property

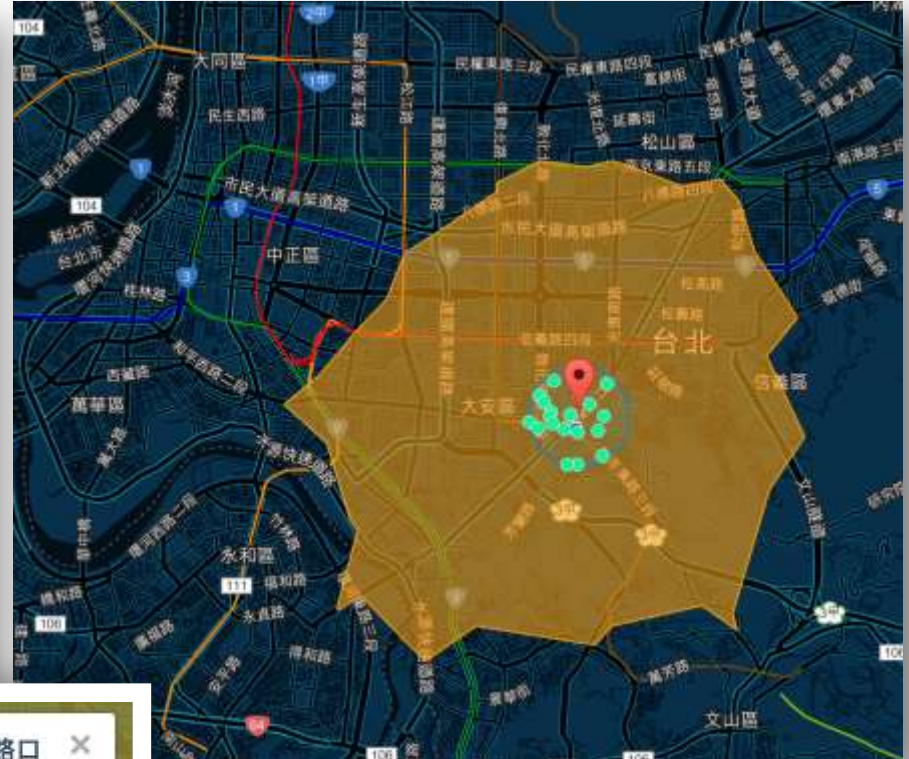
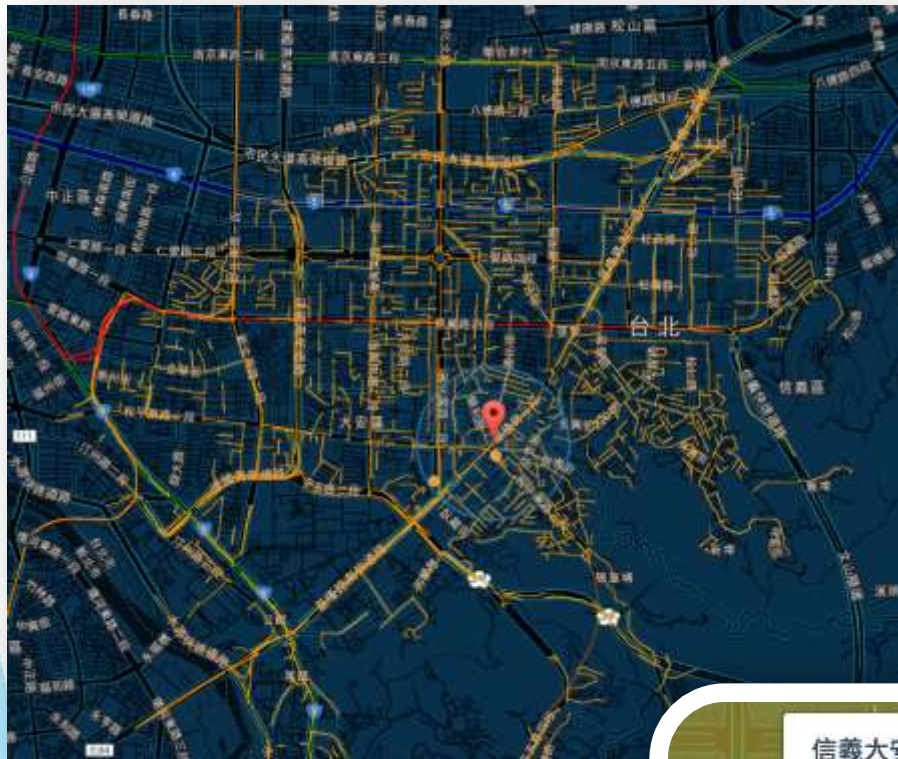


Cluster of Multiple Stop/Station

- Sort out 28,000 stops into 3,000 stations.
- Day-type categories within workday, Friday and holiday.
- Develop the Ranking evaluation



Balance of pretty & performance



Application in Science Industrial Park Area



Off-Pick Hour



Pick Hour

Rent House scenario



Rank. D



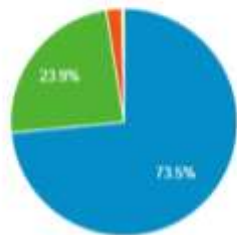
Rank. A

Huge different in just 800
meter.

Upgrade via Google Analytics



行動裝置資訊	客戶開發		
	工作階段	% 新工作階段	新使用者
	86 % 統計: 33.09% (253)	62.79% 資料來源平均: 47.43% (32.38%)	54 % 統計: 45.00% (133)
1. Apple iPhone	35(36.05%)	25.81%	8(14.81%)
2. Apple iPhone 6s	12(11.95%)	41.67%	5 (9.28%)
3. Apple iPhone 6 Plus	7 (8.14%)	85.71%	6(11.11%)
4. (not set)	6 (6.88%)	83.33%	5 (9.28%)
5. Apple iPhone 6	5 (5.81%)	100.00%	5 (9.28%)
6. HTC MBx One M8	3 (3.49%)	100.00%	3 (5.56%)
7. Apple iPhone 5	2 (2.33%)	100.00%	2 (3.70%)





Improving our environment via Data Innovation!

Thank you so much!

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