



ITS Washington
December 11th, 2018

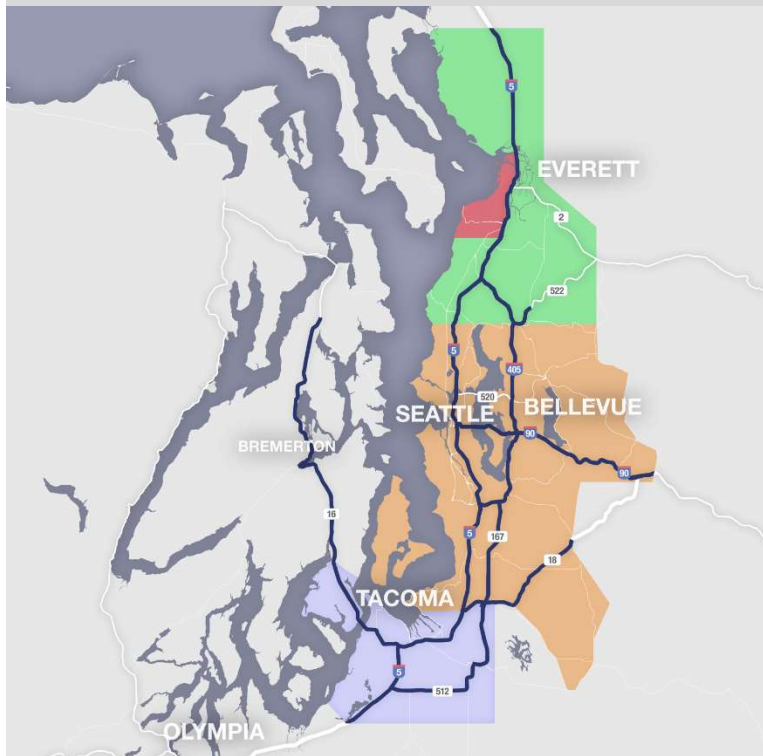
Karl Typolt
Senior ITS Engineer
Karl.Typolt@transpogroup.com

transpogroup 
WHAT TRANSPORTATION CAN BE.

PRESENTATION STRUCTURE

- **Transit & Traffic** Agencies in the Puget Sound Region
- King County Metro's **Existing TSP System**
- King County's Approach to **NextGen TSP**
- Regional **DSRC** Considerations for TSP

TRANSIT AGENCIES IN THE PUGET SOUND REGION



KING COUNTY METRO HIGH CAPACITY TRANSIT



Existing RapidRide Routes

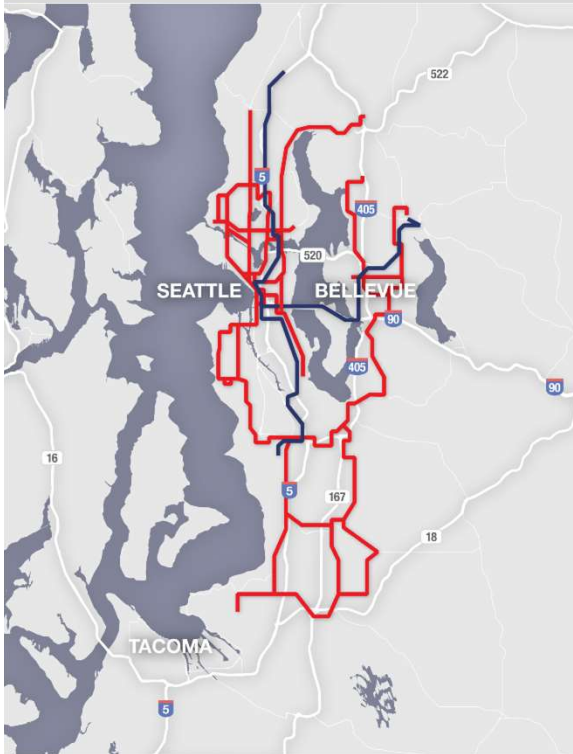
Routes:

6 – RapidRide A through F

TSP Intersections:

200 – across 10 jurisdictions

KING COUNTY METRO HIGH CAPACITY TRANSIT



2025 RapidRide Routes

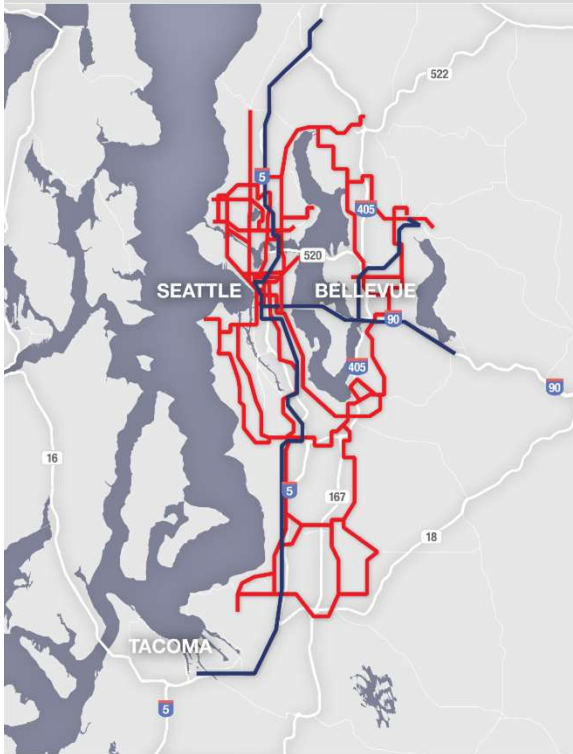
Routes:

18 – including 6 SDOT BRT routes

TSP Intersections:

400 – across 18 jurisdictions

KING COUNTY METRO HIGH CAPACITY TRANSIT



2040 RapidRide Routes

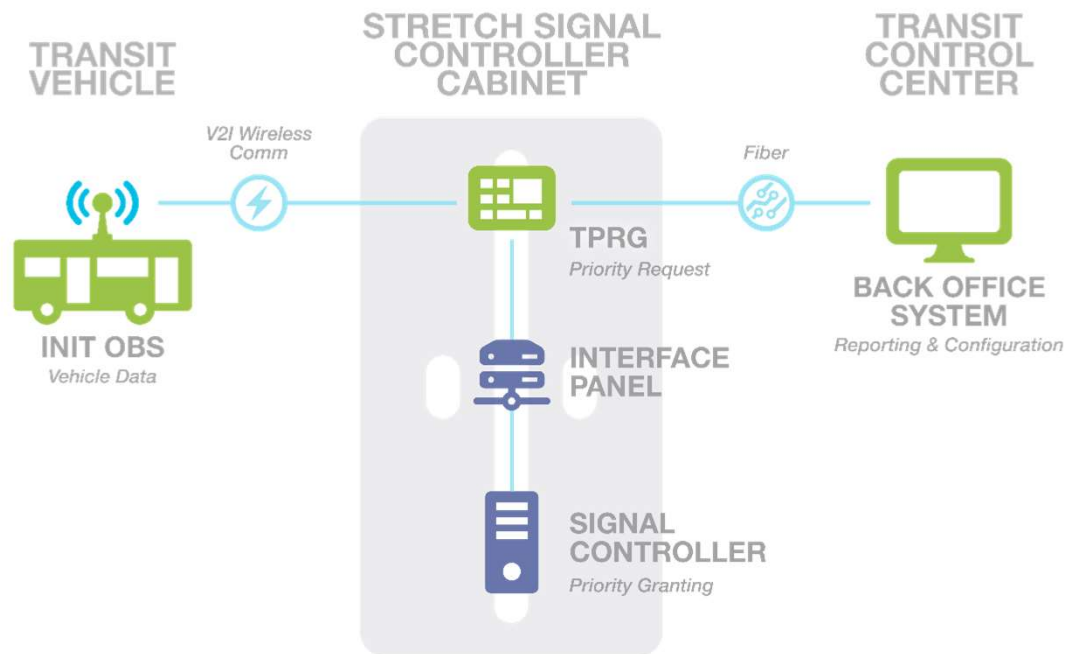
Routes:

Many more

TSP Intersections:

A lot... why not all?

EXISTING KC METRO TSP ARCHITECTURE



EXISTING KC METRO TSP ARCHITECTURE

Roadside Equipment



**Wireless
Access Point**



**Stretch
Cabinet**



**Interface
Panel**



**McCain
TPRG**

TRAFFIC AGENCIES IN THE PUGET SOUND REGION



SIEMENS

SeaTac
Kirkland
Renton
Seattle
Shoreline
Tukwila
King County

ECONOLITE

Auburn
Burien
Federal Way
Newcastle
Kent
Redmond
Des Moines
King County



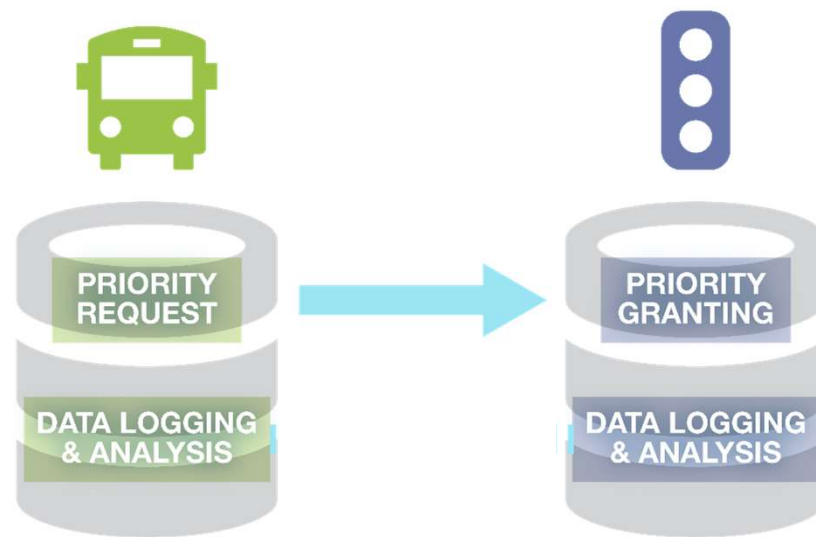
Bellevue

INTELLIGHT
NEVER STAND STILL

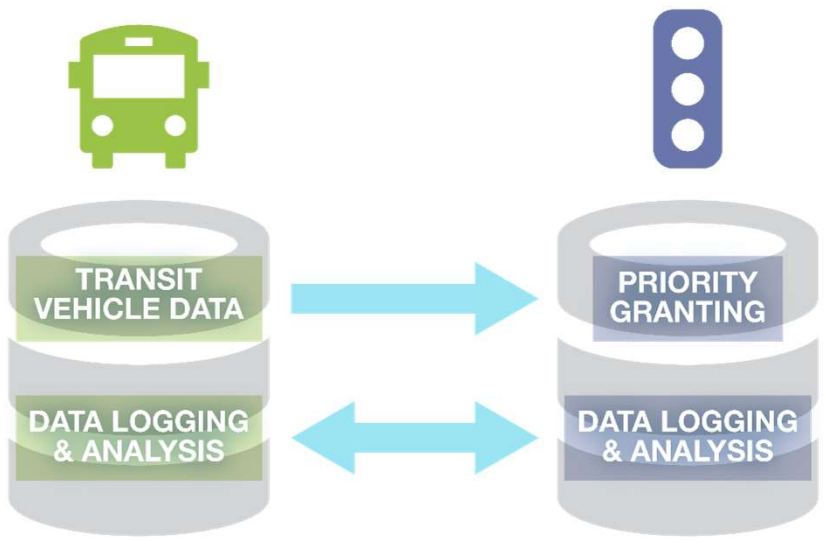
WSDOT
(not shown)

transpogroup **7F**

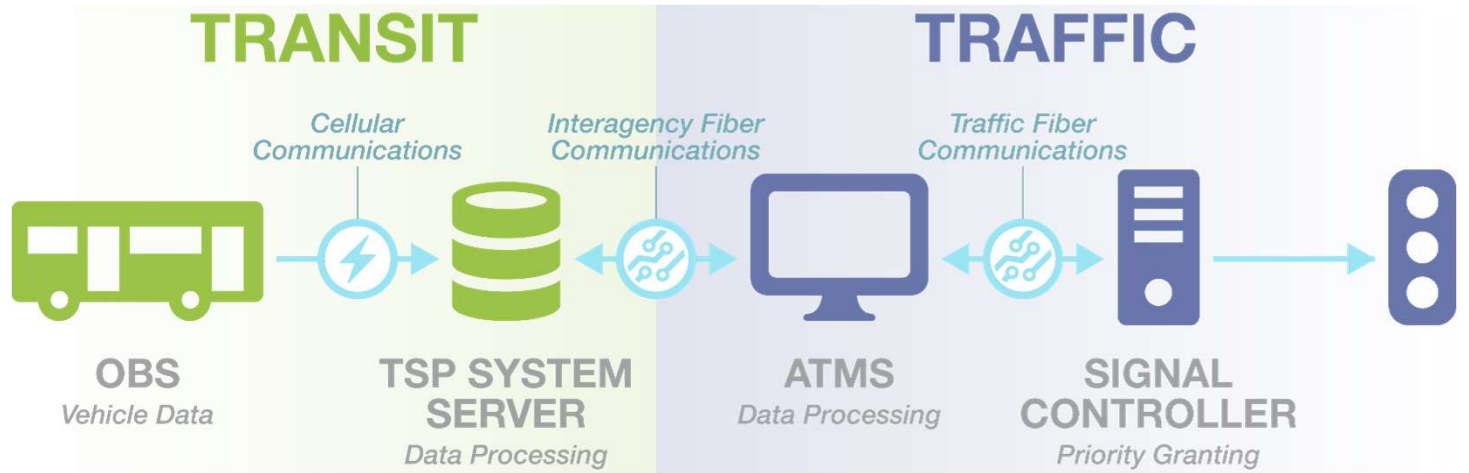
CURRENT TRANSIT & TRAFFIC RELATIONSHIP



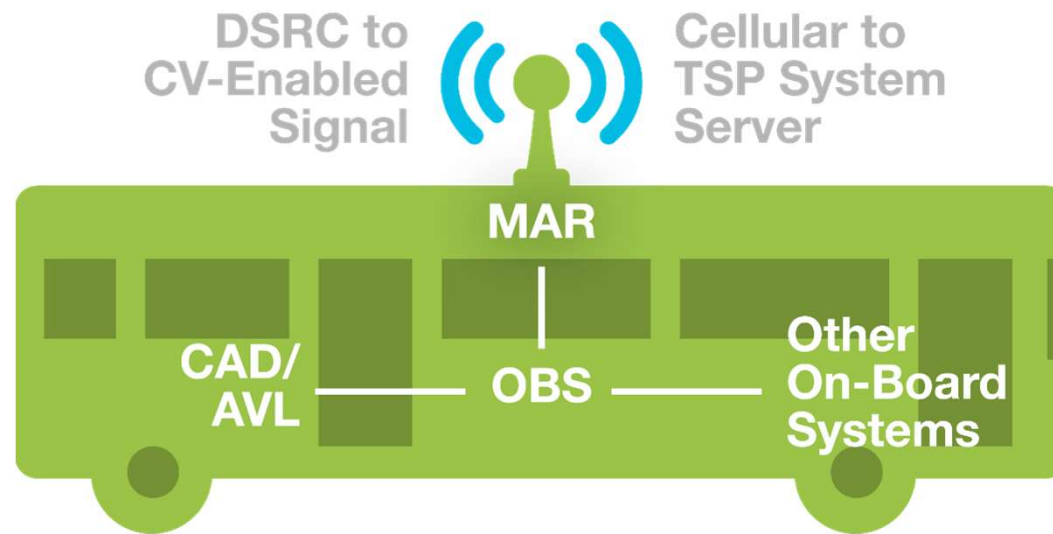
PROPOSED NEXTGEN RELATIONSHIP



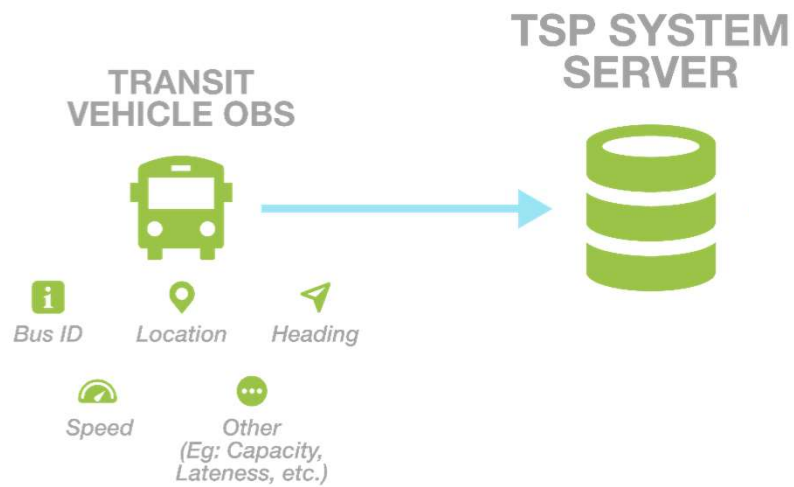
NEXTGEN TSP COMPONENTS



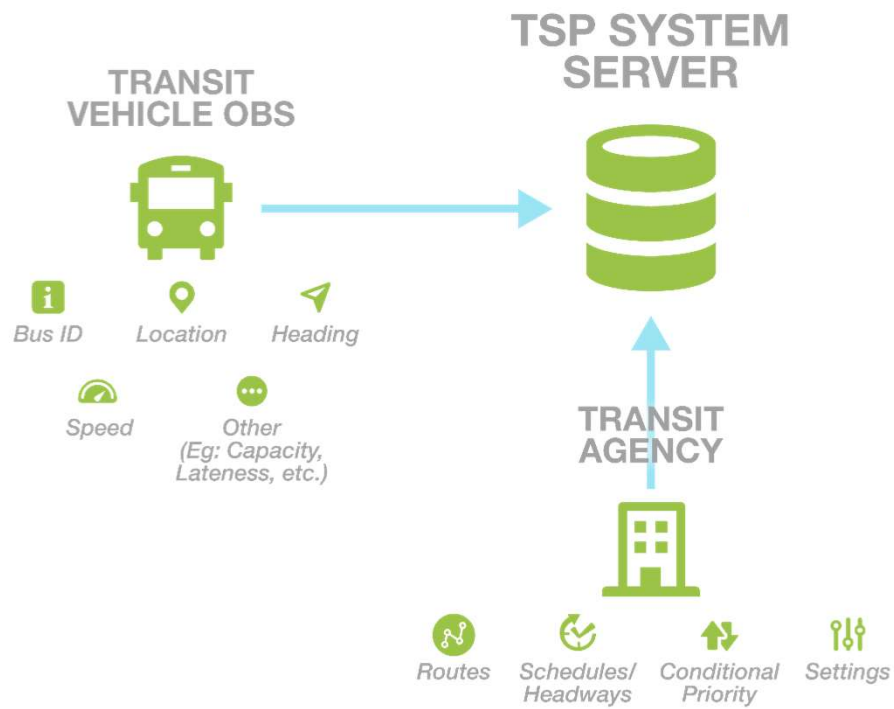
TRANSIT VEHICLE ON-BOARD SYSTEMS



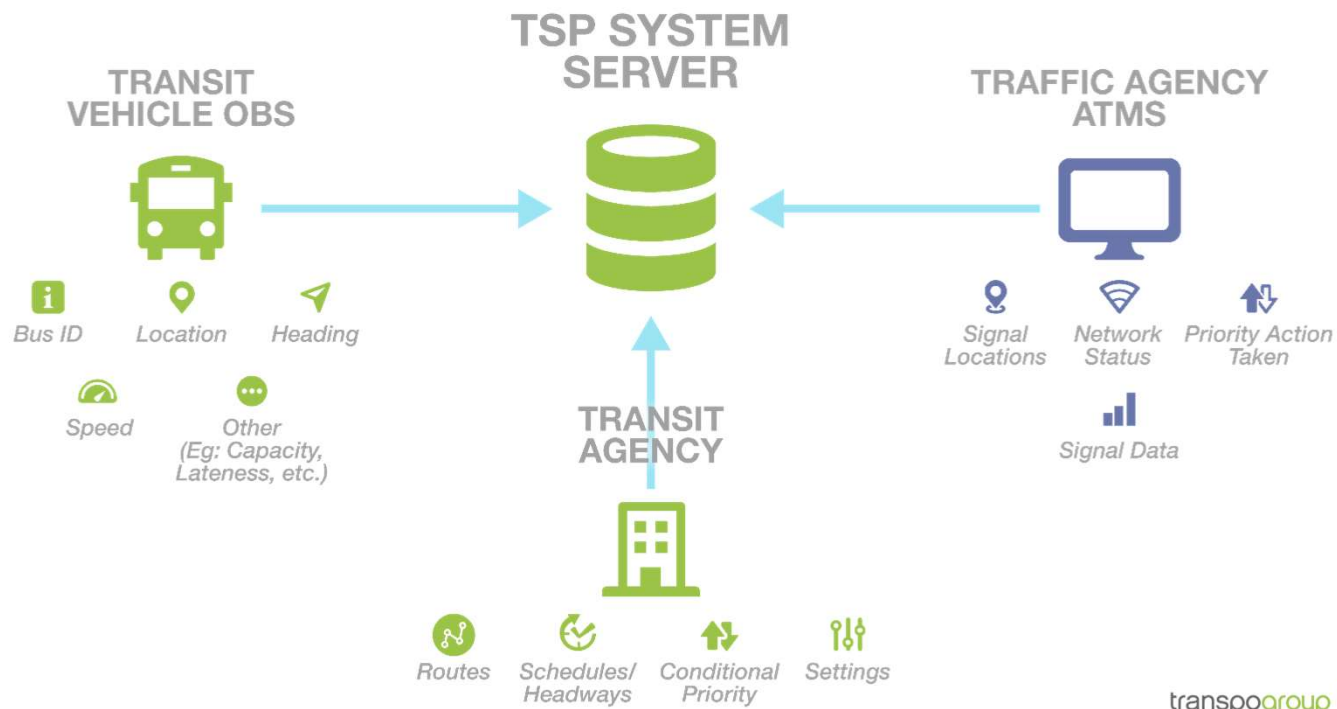
TSP SYSTEM SERVER INPUTS



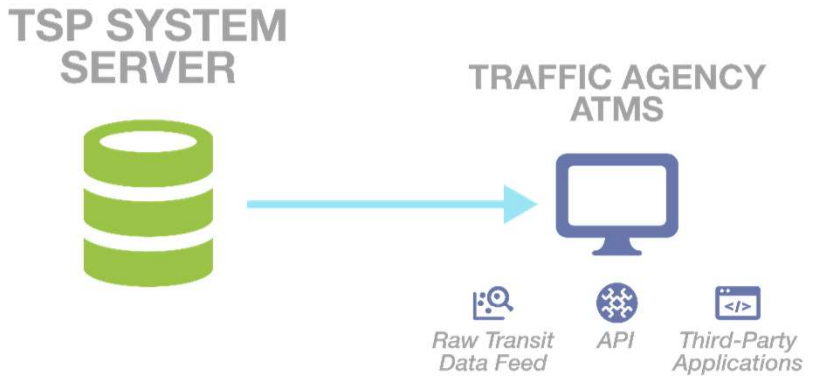
TSP SYSTEM SERVER INPUTS



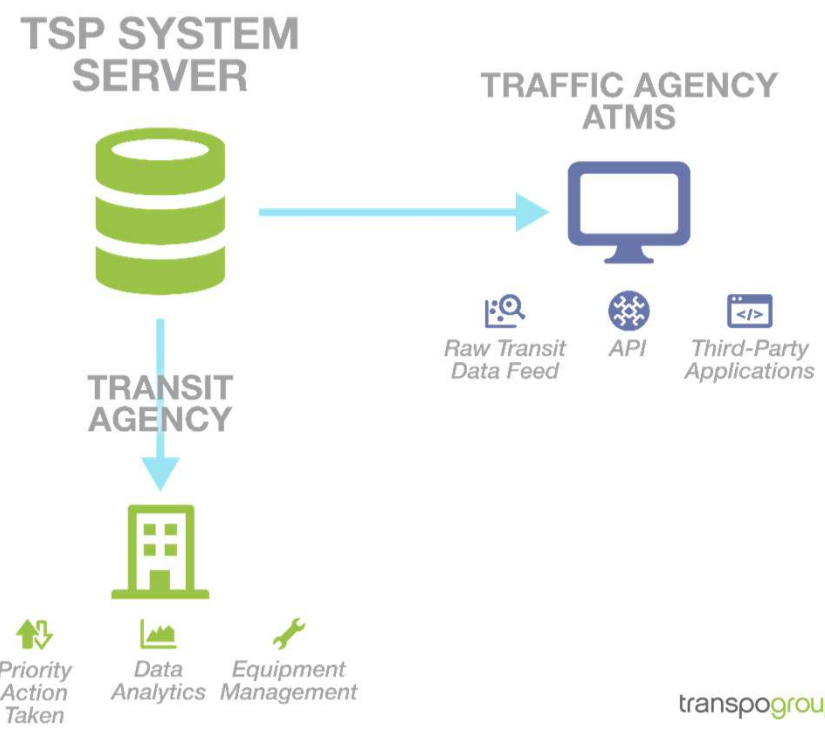
TSP SYSTEM SERVER INPUTS



TSP SYSTEM SERVER OUTPUTS



TSP SYSTEM SERVER OUTPUTS



IMPLEMENTATION APPROACH



**Upgrade
On-Board
System**



**Procure
System
Server**



**Document Partner
Jurisdiction Data
Req's and
Establish C2C
Connection**



**Support
Signal
System
Upgrades**

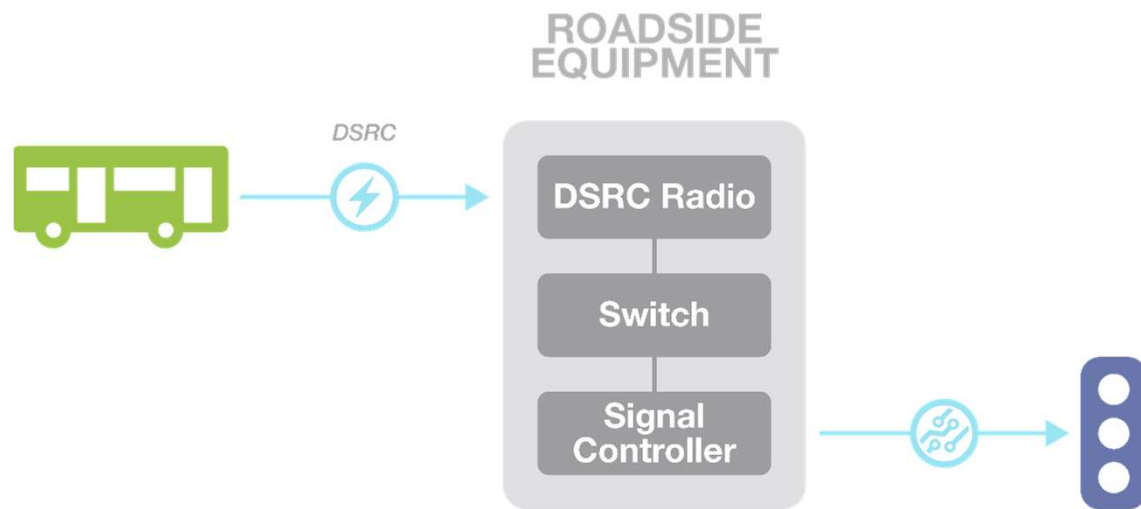


**Develop TSP
Business Rules
and Interagency
Agreements**



**TSP Network
Build Out
via IP**

WHAT ABOUT DSRC?



Thank You!

Karl Typolt, Senior ITS Engineer
Transpo Group

karl.typolt@transpogroup.com