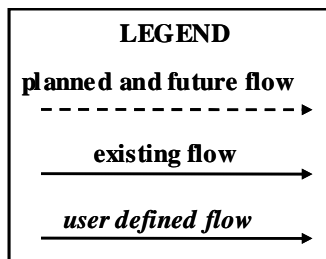
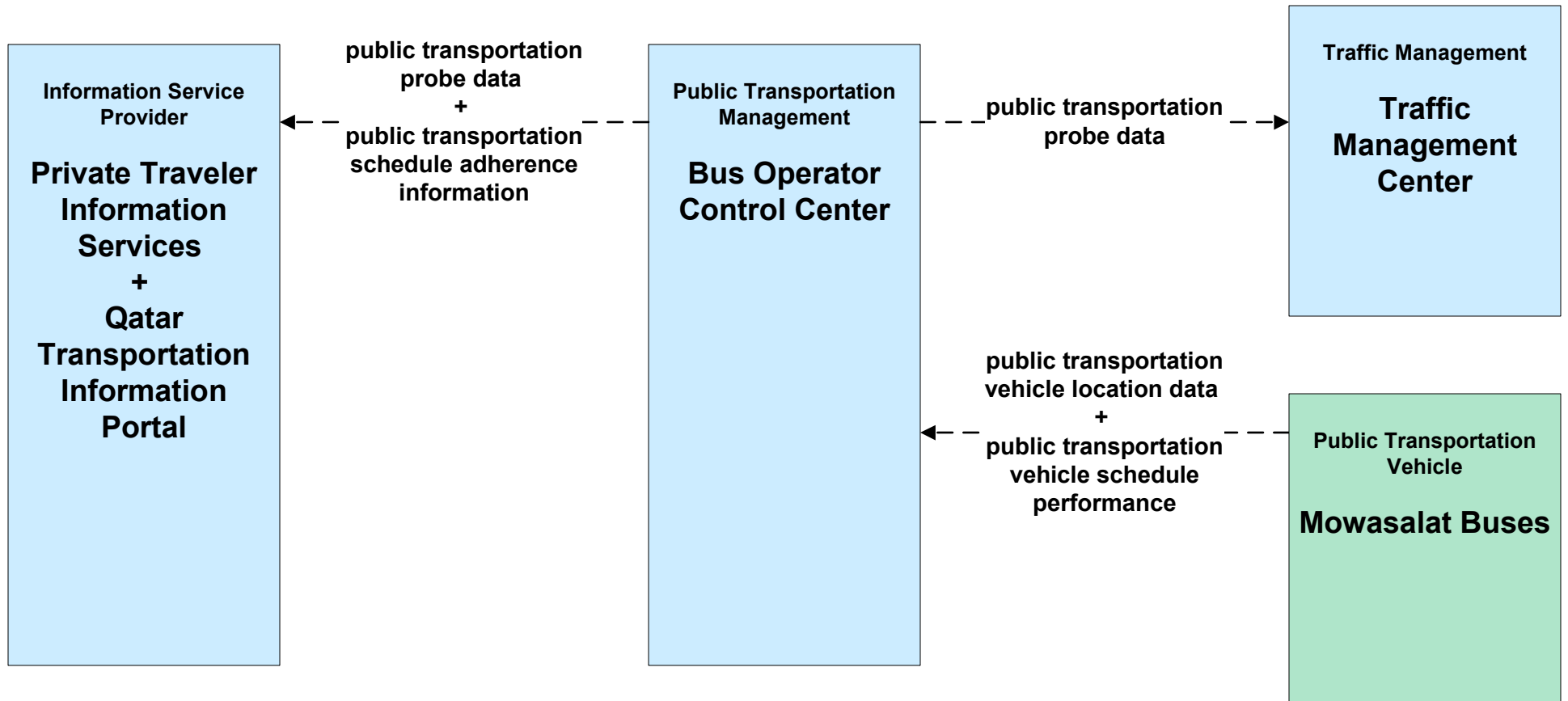


State of Qatar ITS Architecture

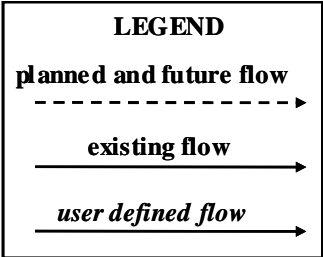
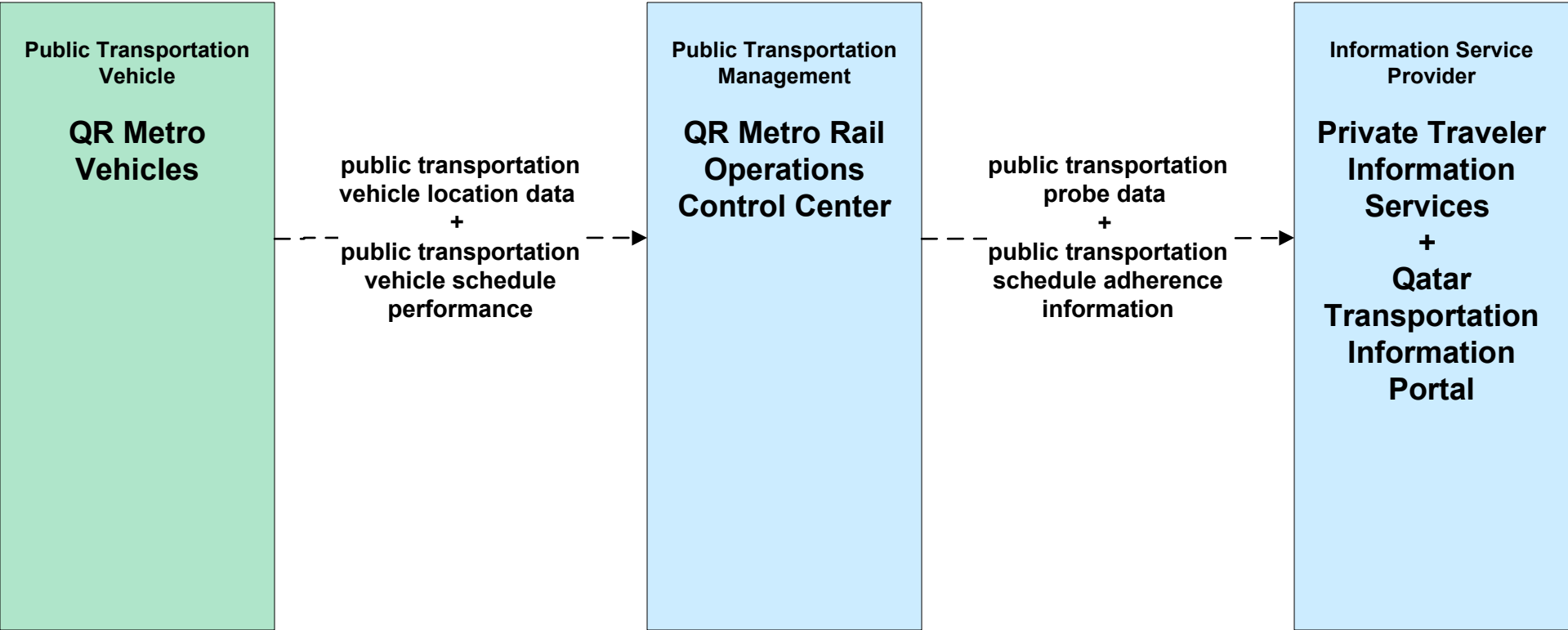
Customized Service Package Diagrams

Advanced Public Transportation Systems (APTS)

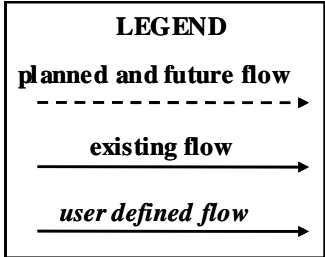
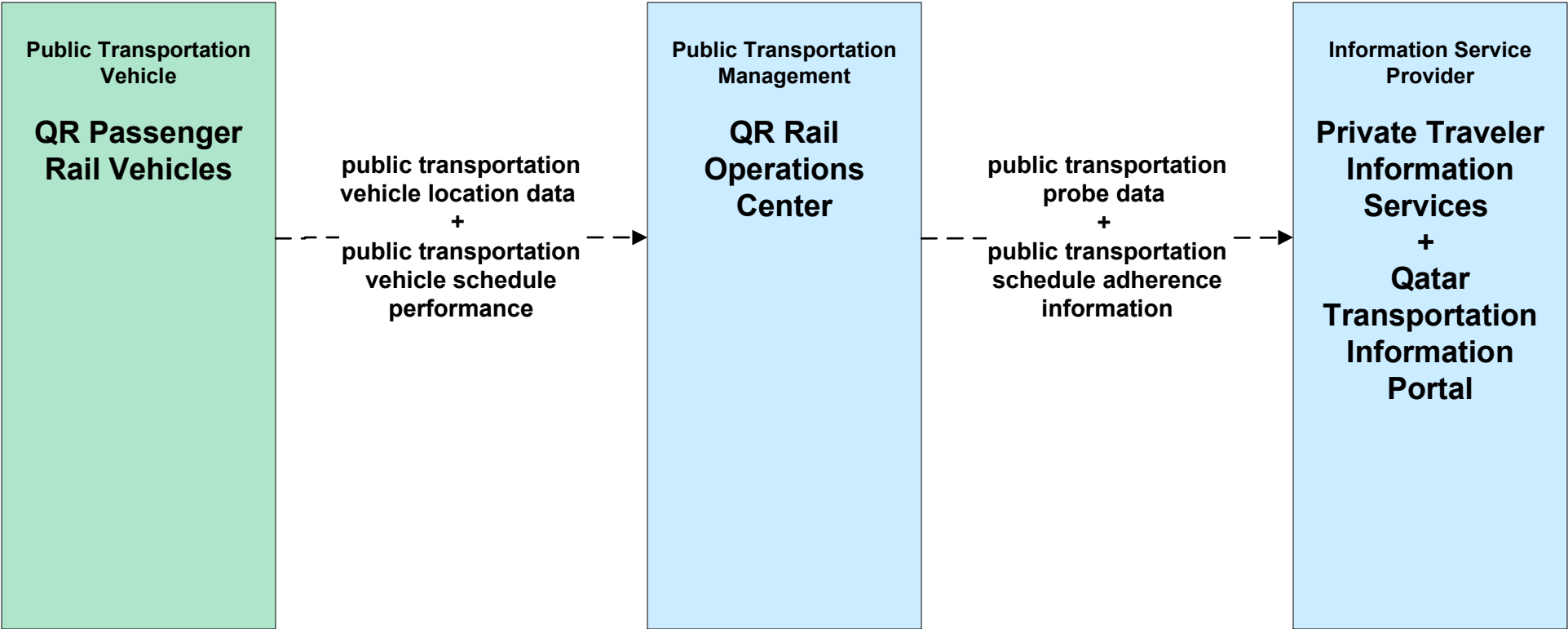
APTS01 - Public Transportation Vehicle Tracking Mowasalat Buses



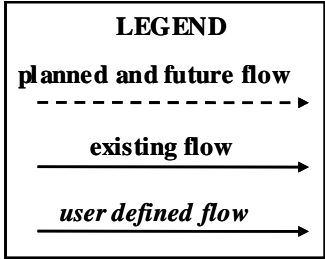
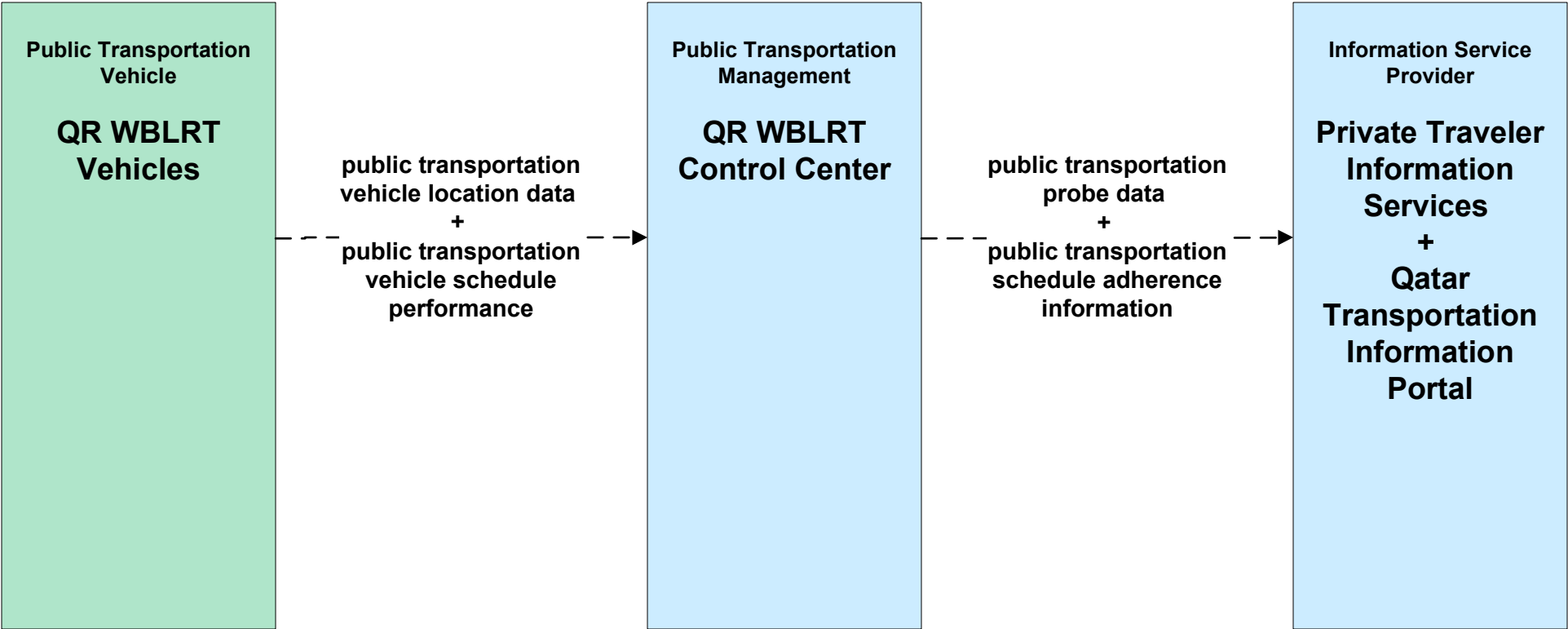
**APTS01 - Public Transportation Vehicle Tracking
Doha Metro**



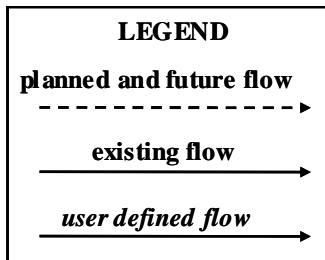
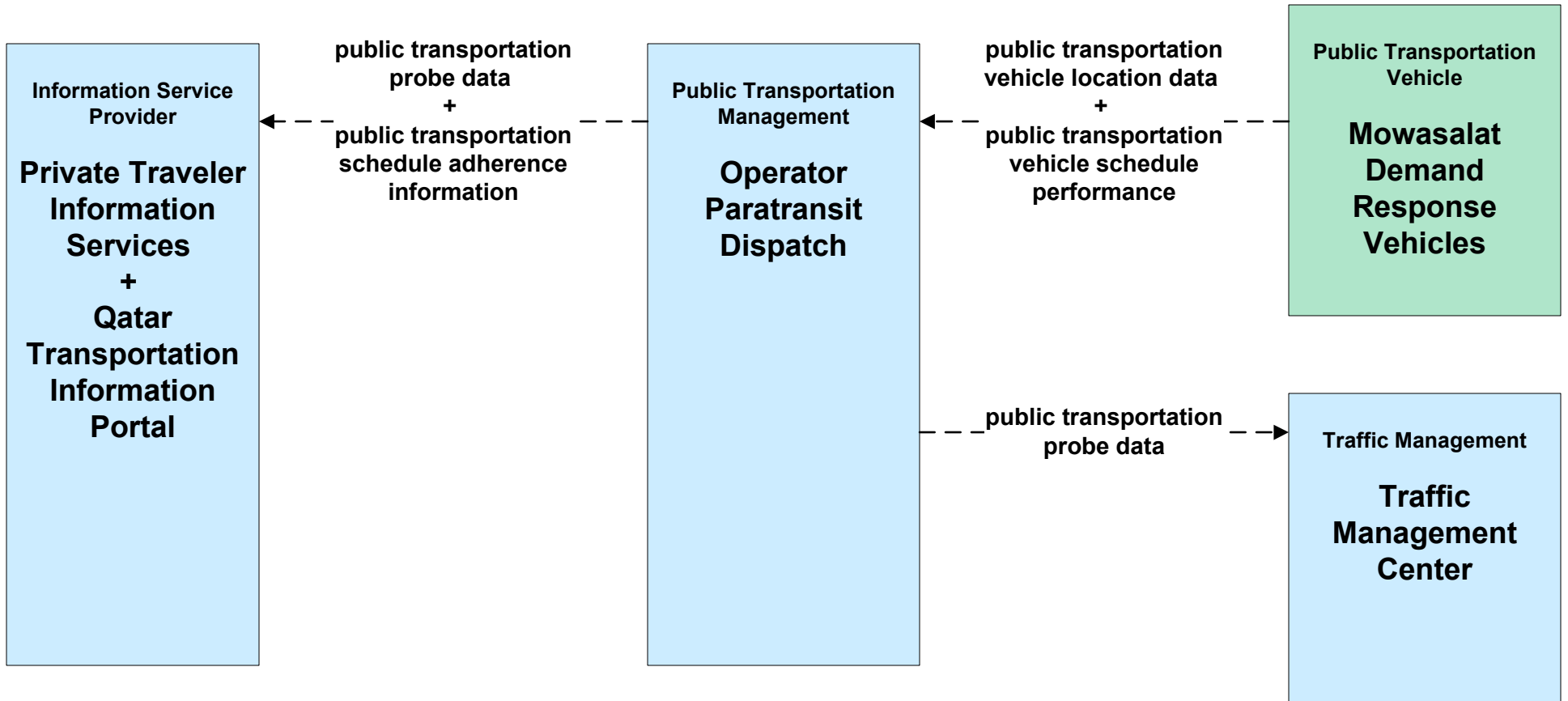
**APTS01 - Public Transportation Vehicle Tracking
Qatar Railways Passenger Rail**



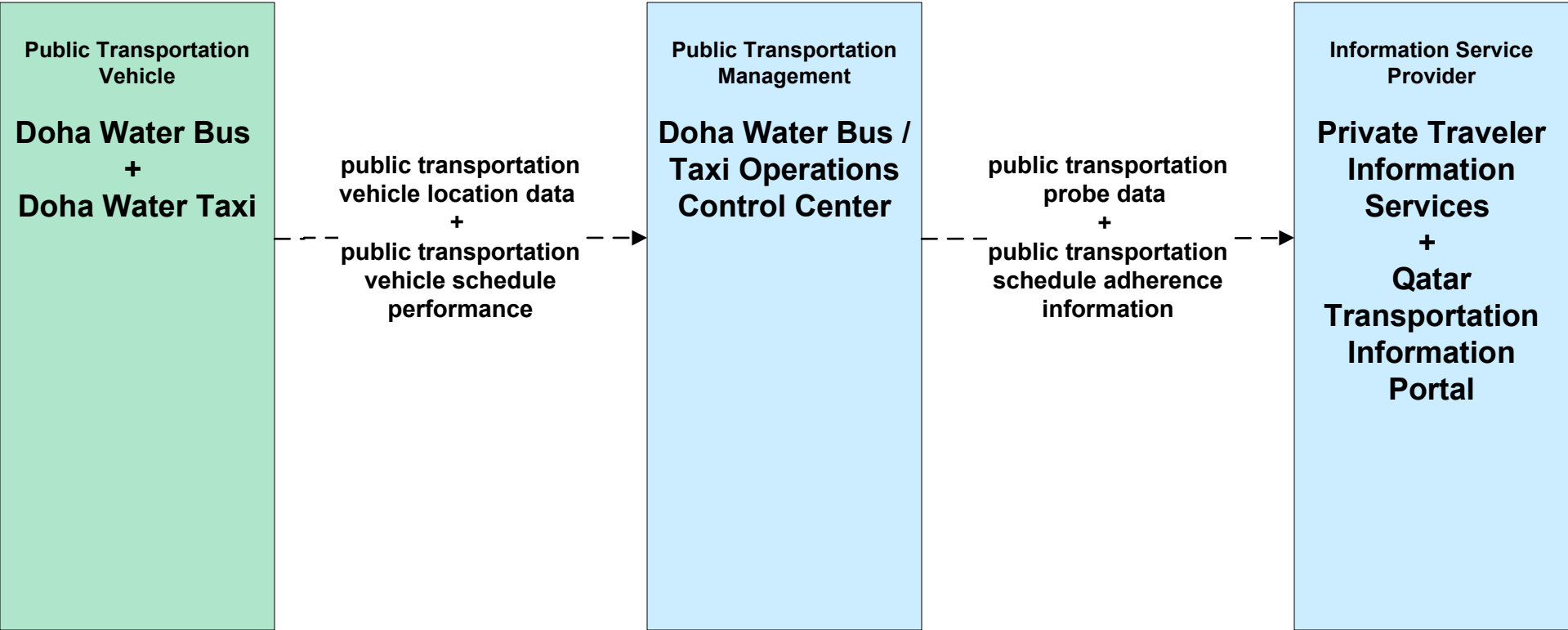
**APTS01 - Public Transportation Vehicle Tracking
West Bay LRT**



APTS01 - Public Transportation Vehicle Tracking Mowasalat Paratransit



**APTS01 - Public Transportation Vehicle Tracking
Doha Bay Water Bus and Taxi**



If no passengers are at a station (have tapped in) and if no passengers onboard have called for a stop, and if the vehicle is behind schedule, a stop should be able to be skipped.

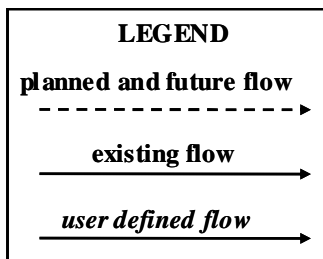
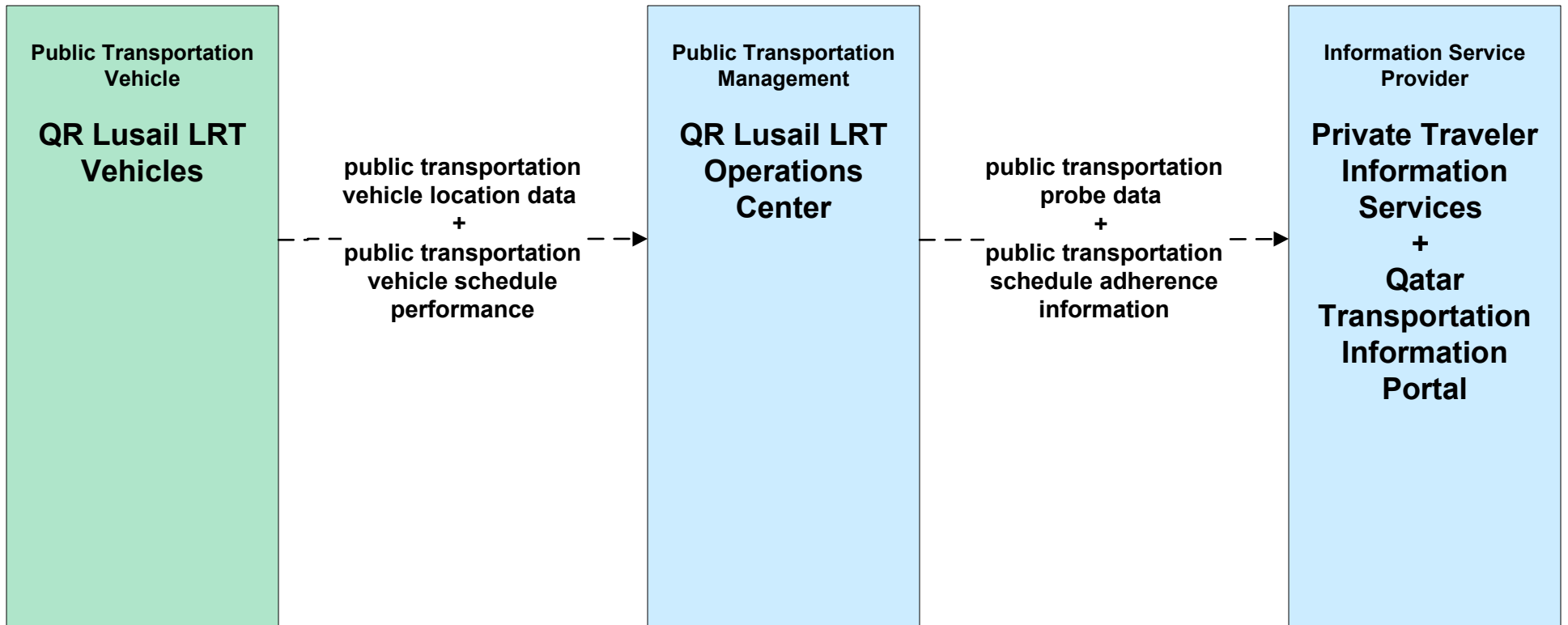
LEGEND

planned and future flow
 ----->

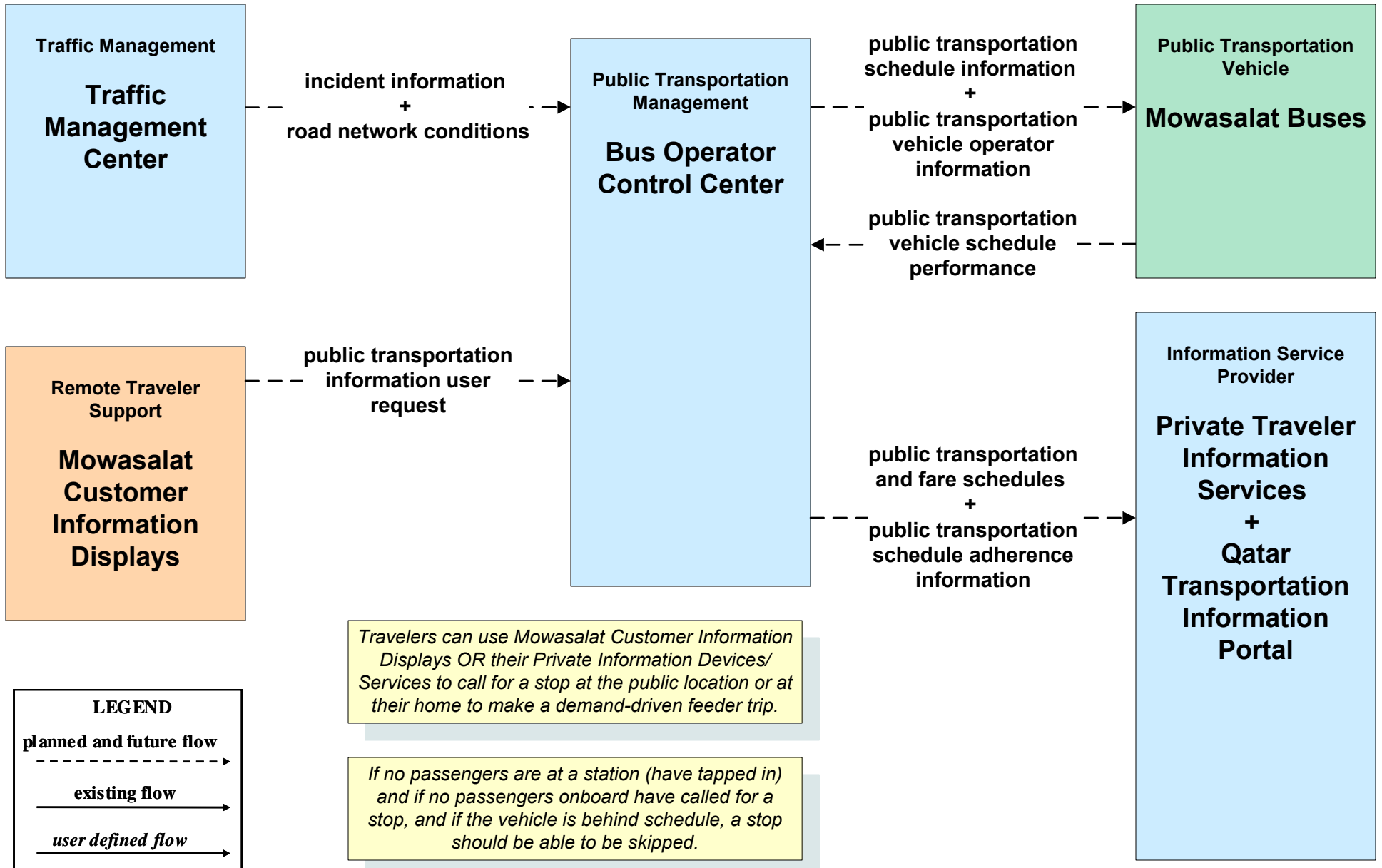
existing flow
 _____>

user defined flow
 _____>

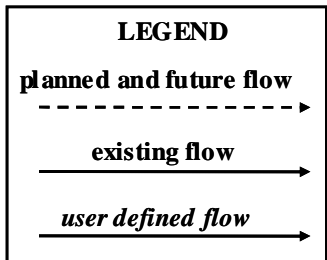
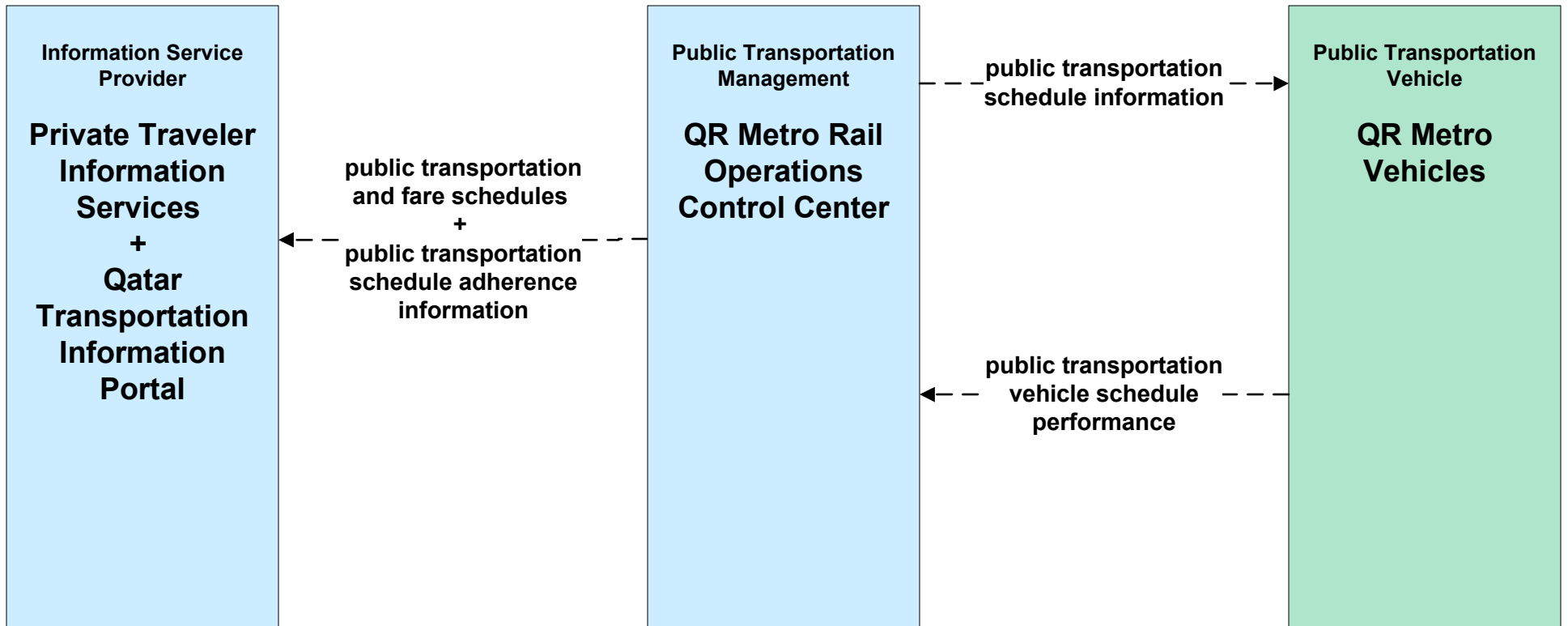
APTS01 - Public Transportation Vehicle Tracking Lusail LRT



APTS02 - Public Transportation Fixed-Route Operations Mowasalat Bus



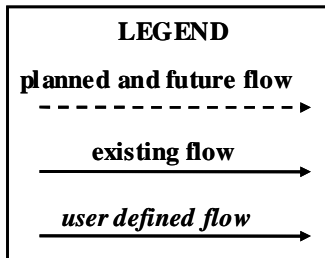
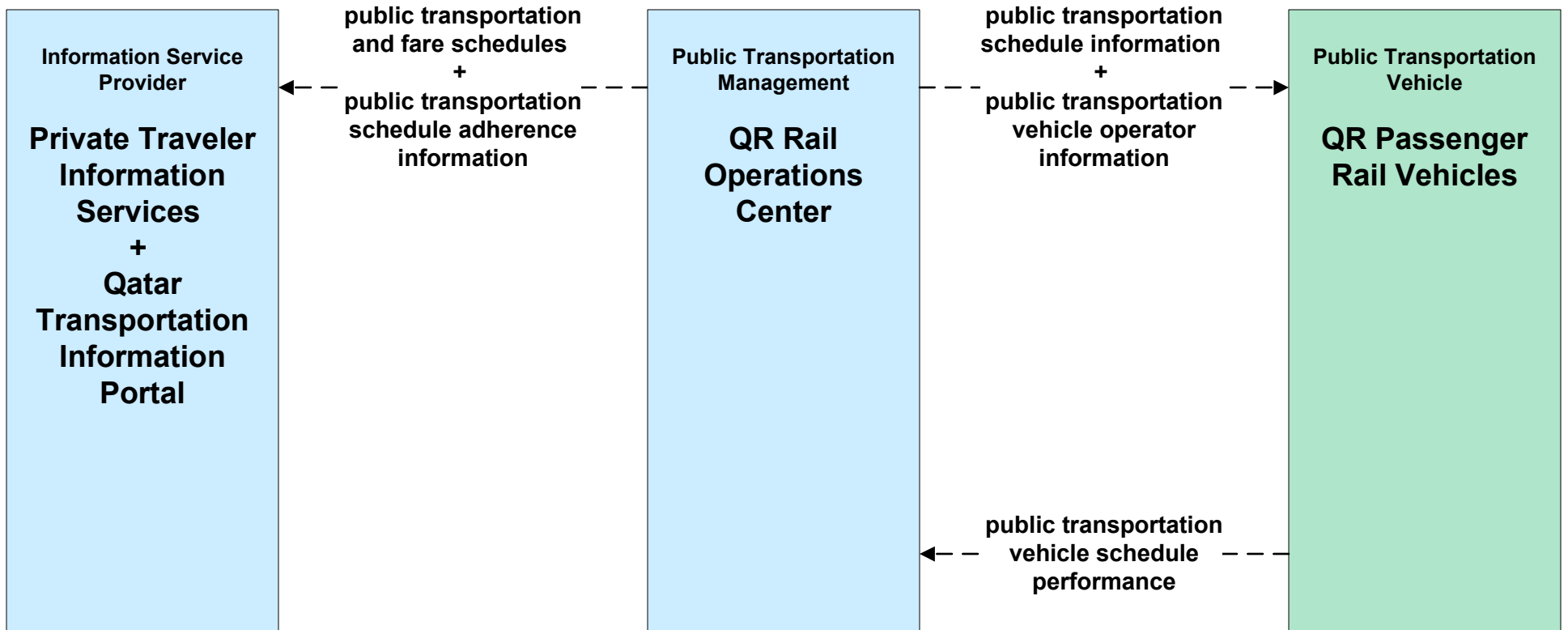
APTS02 - Public Transportation Fixed-Route Operations QR Metro Rail Operations Control Center



If no passengers are at a station (have tapped in) and if no passengers onboard have called for a stop, and if the vehicle is behind schedule, a stop should be able to be skipped.

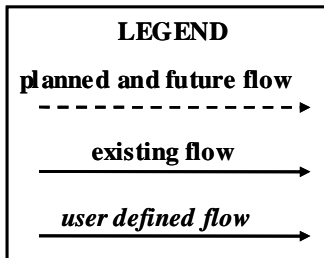
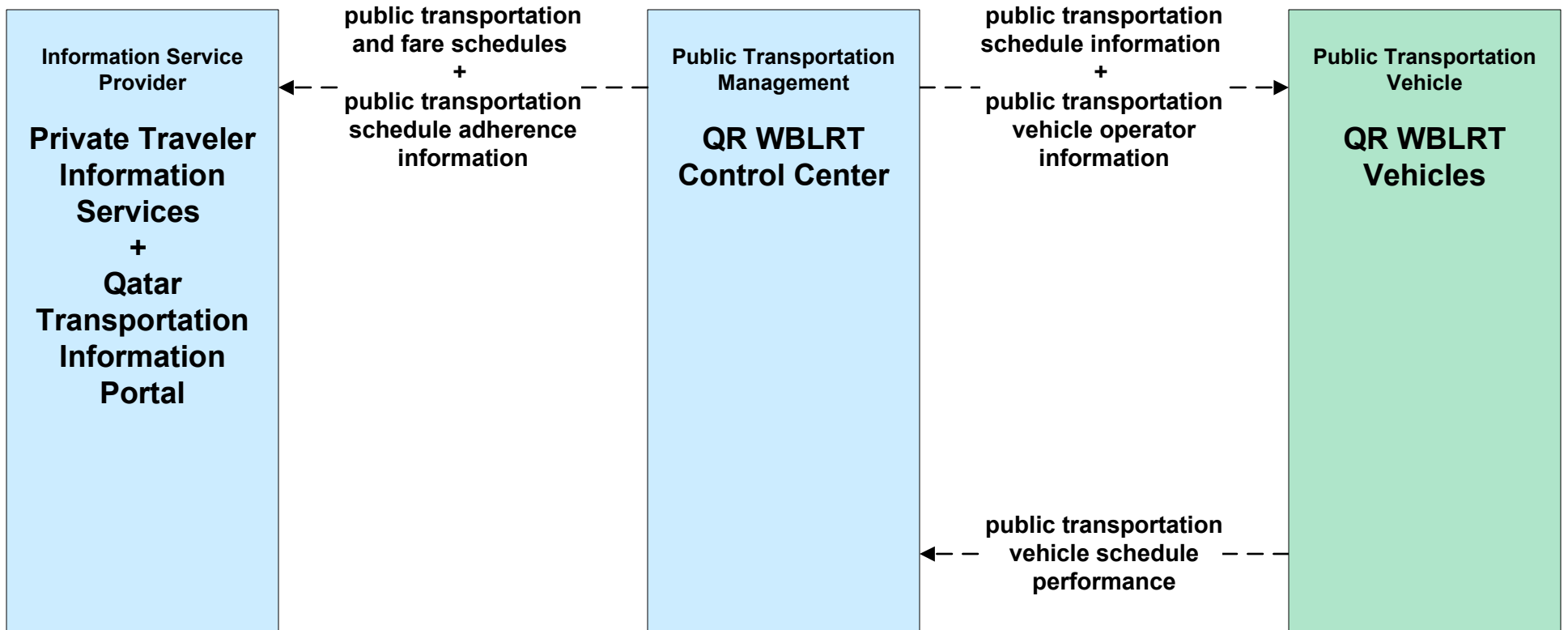
No Driver Expected on Metro (different on the LRTs)

APTS02 - Public Transportation Fixed-Route Operations Qatar Passenger Rail



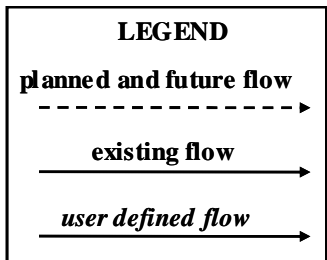
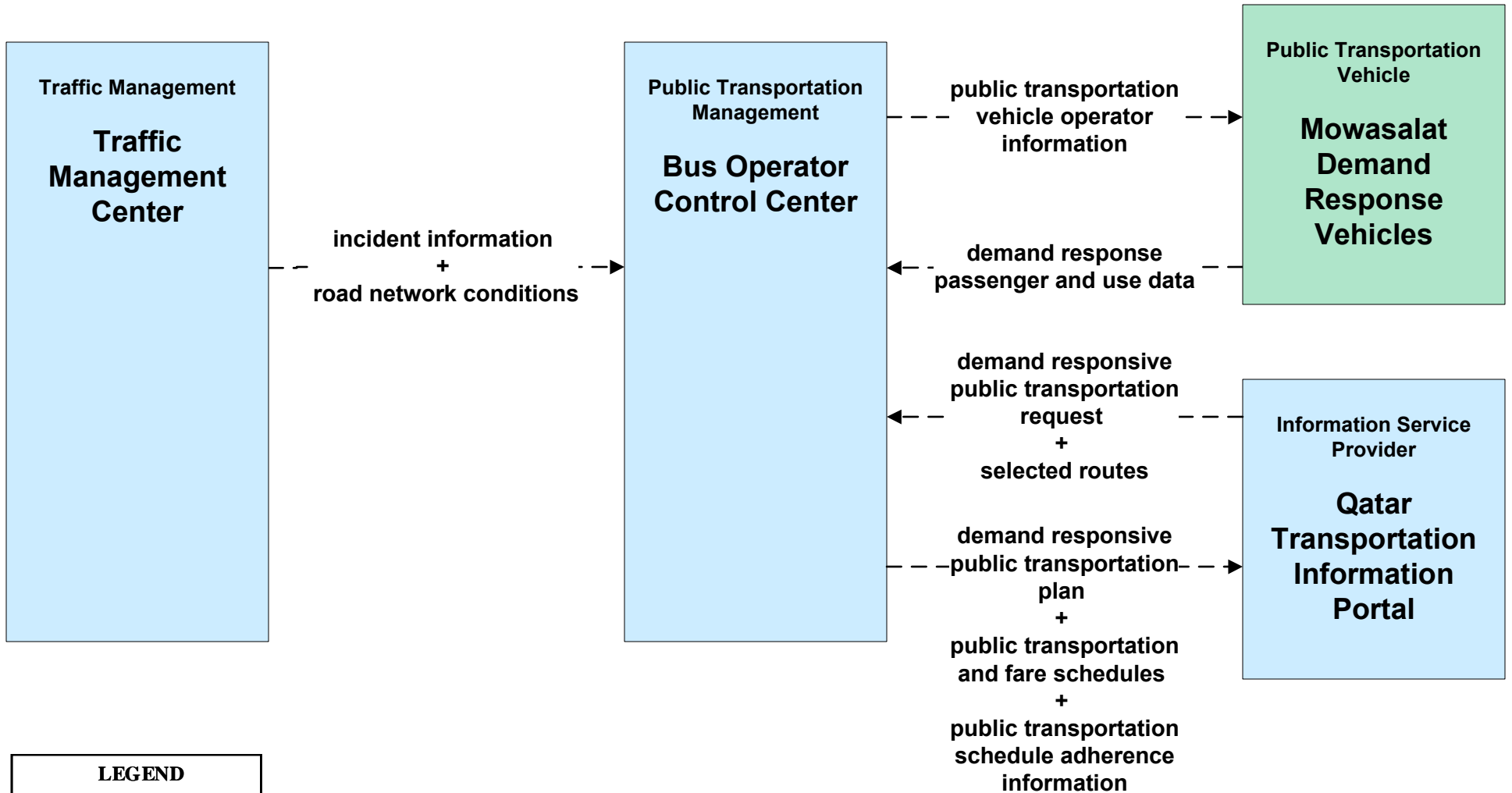
If no passengers are at a station (have tapped in) and if no passengers onboard have called for a stop, and if the vehicle is behind schedule, a stop should be able to be skipped.

APTS02 - Public Transportation Fixed-Route Operations WBLRT

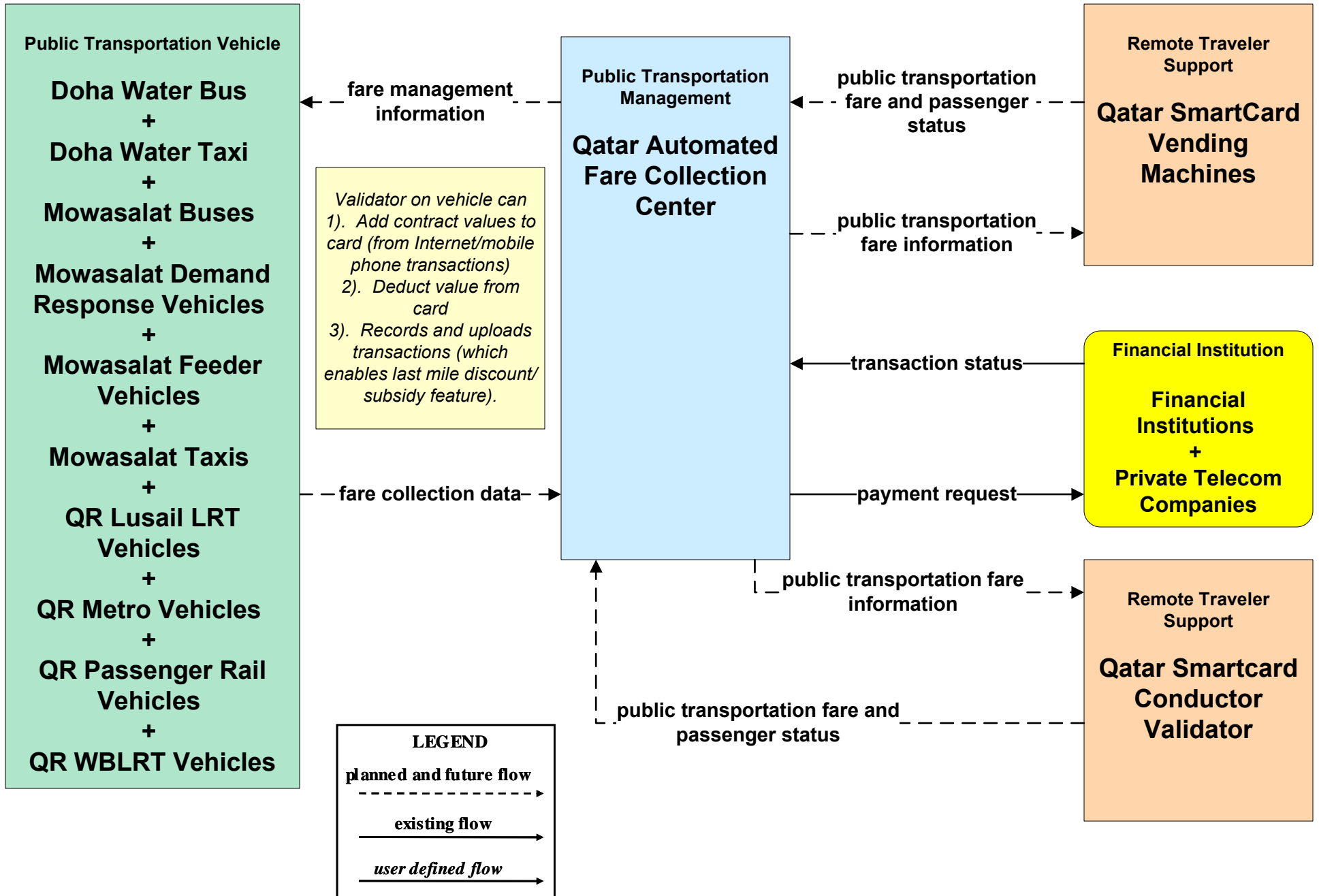


If no passengers are at a station (have tapped in) and if no passengers onboard have called for a stop, and if the vehicle is behind schedule, a stop should be able to be skipped.

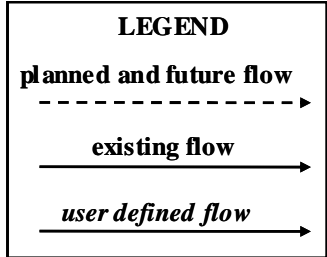
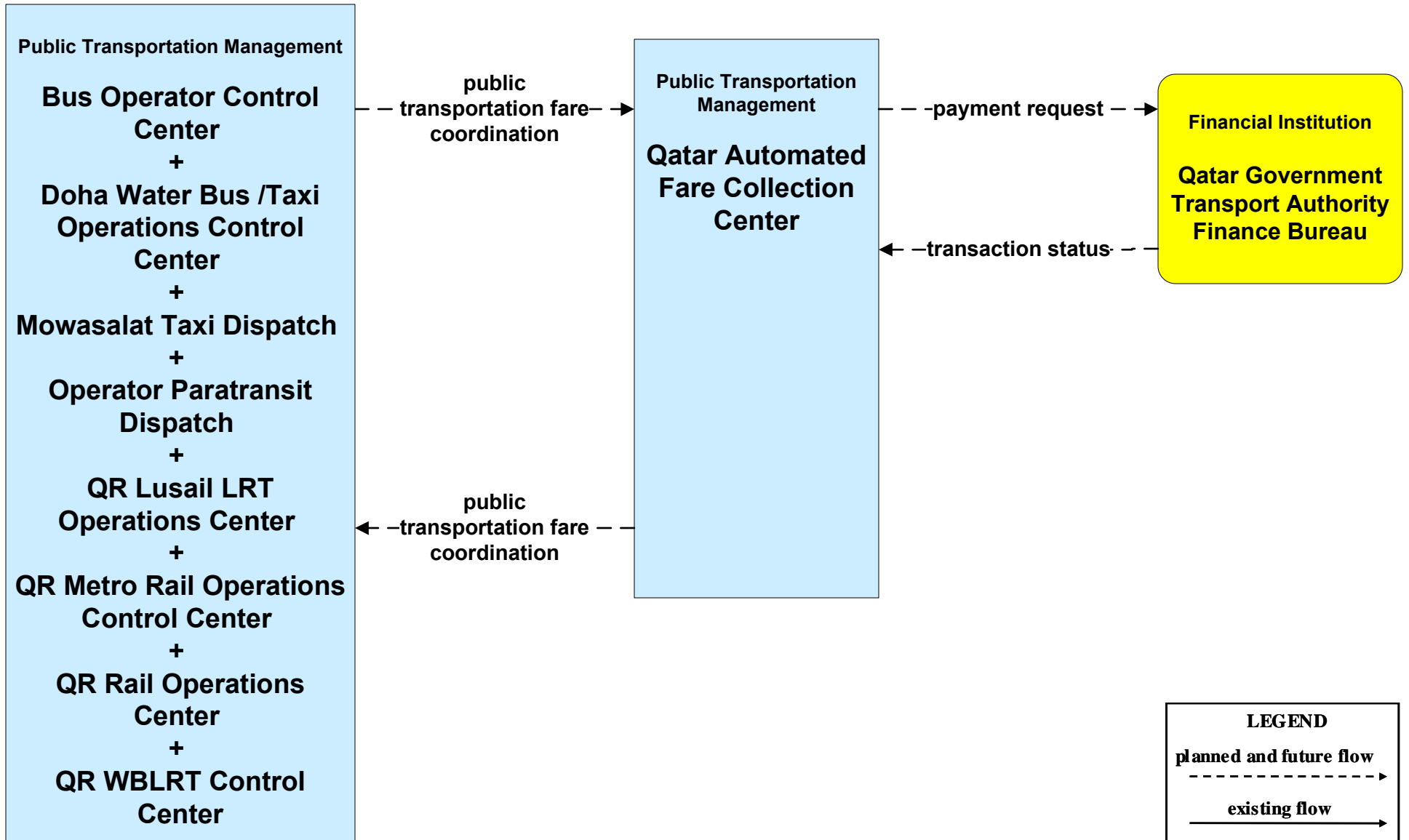
**APTS03 - Demand Response Public Transportation Operations
Mowasalat Demand Response**



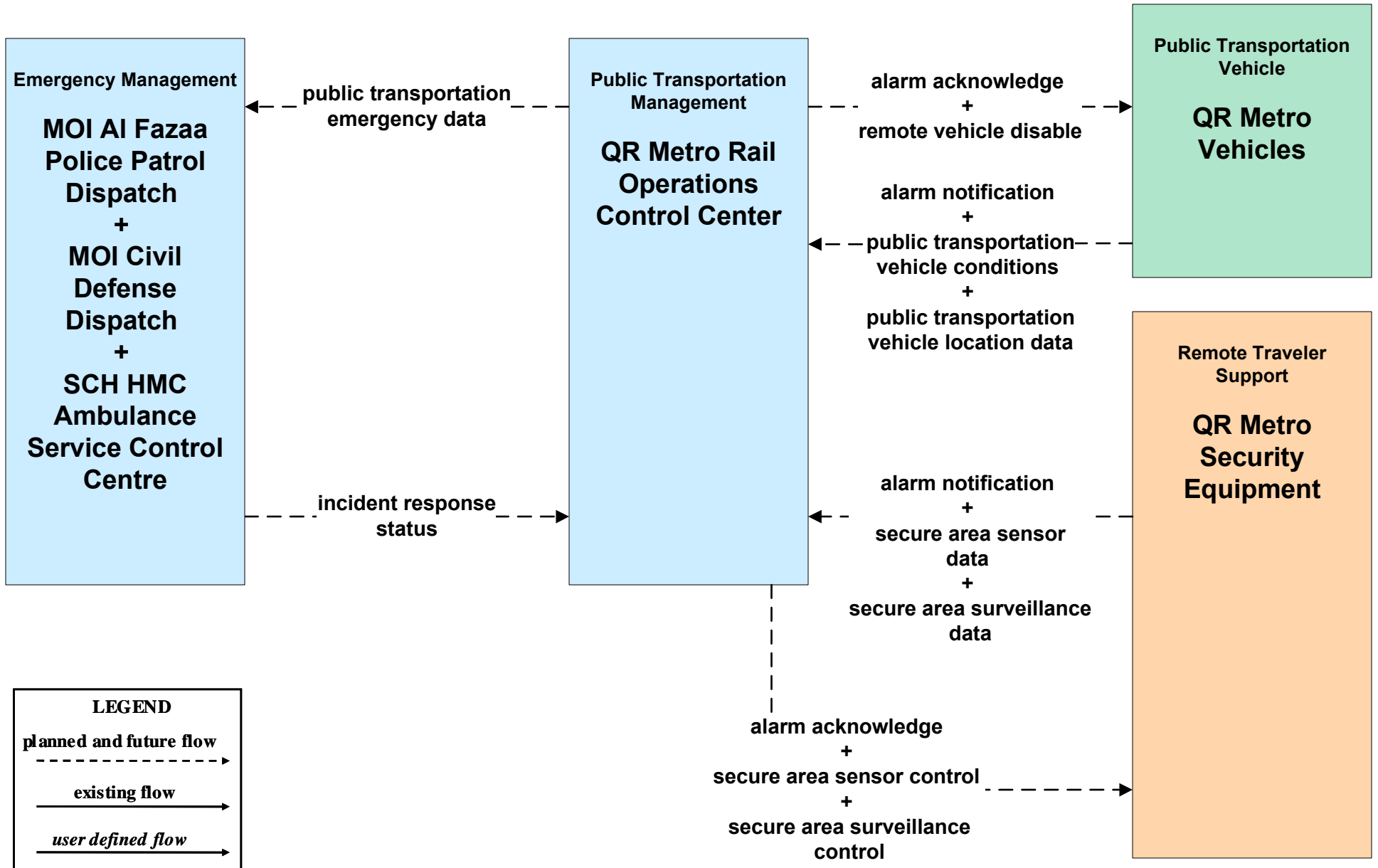
APTS04 - Public Transportation Passenger and Fare Payment Qatar SmartCard System



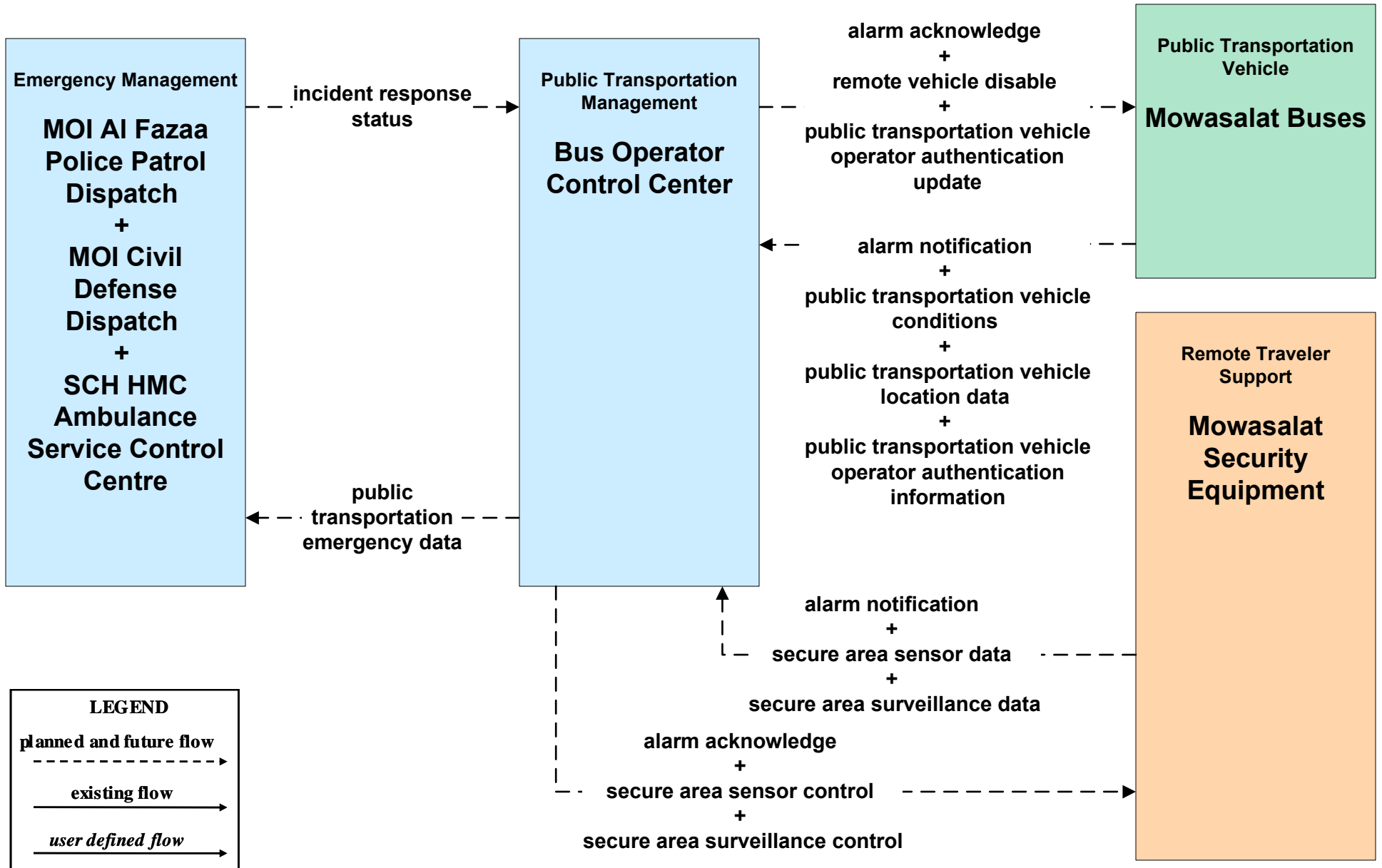
**APTS04 - Public Transportation Passenger and Fare Payment
Public Transportation Fare Coordination**



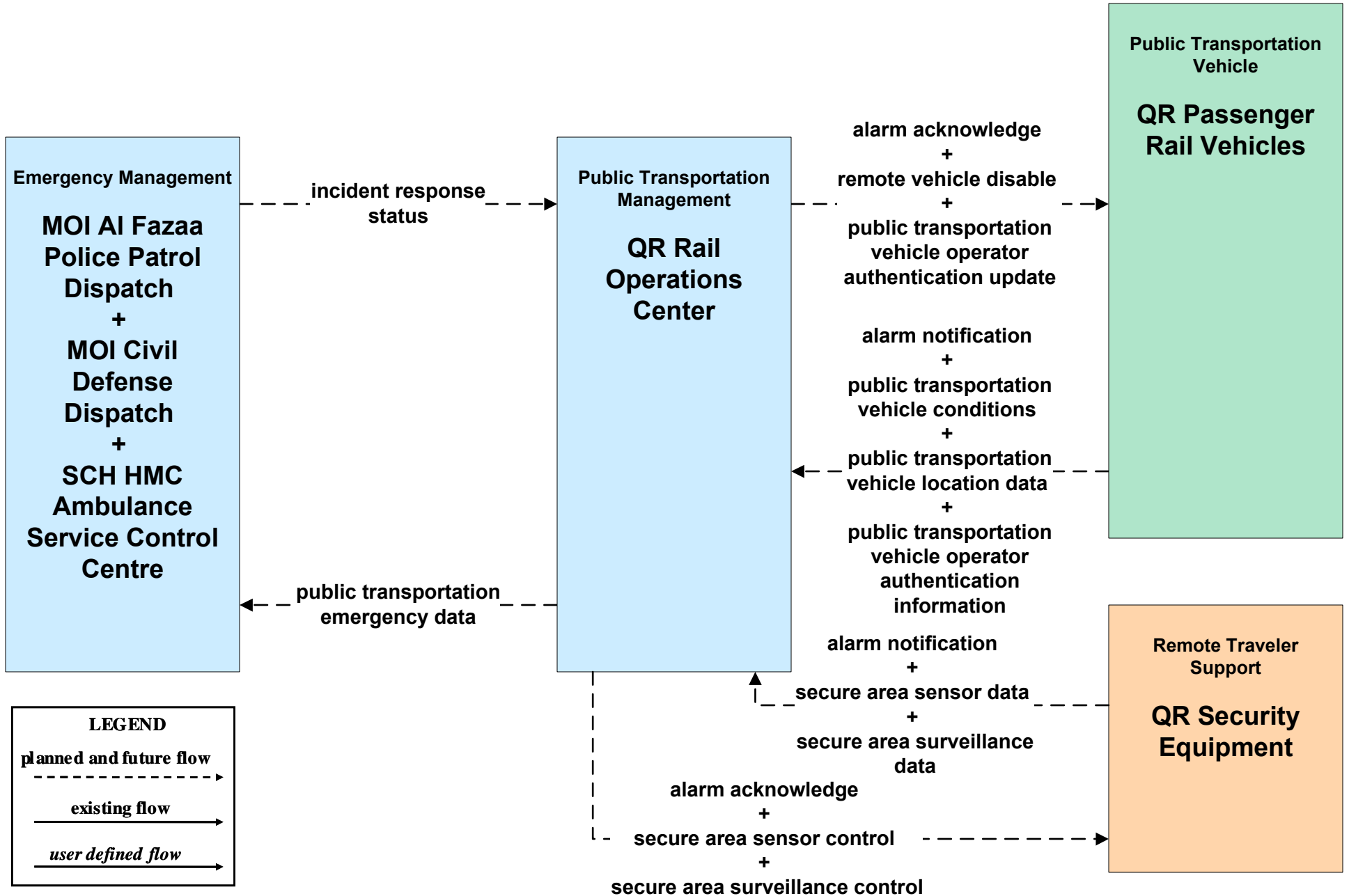
APTS05 - Public Transportation Security Doha Metro



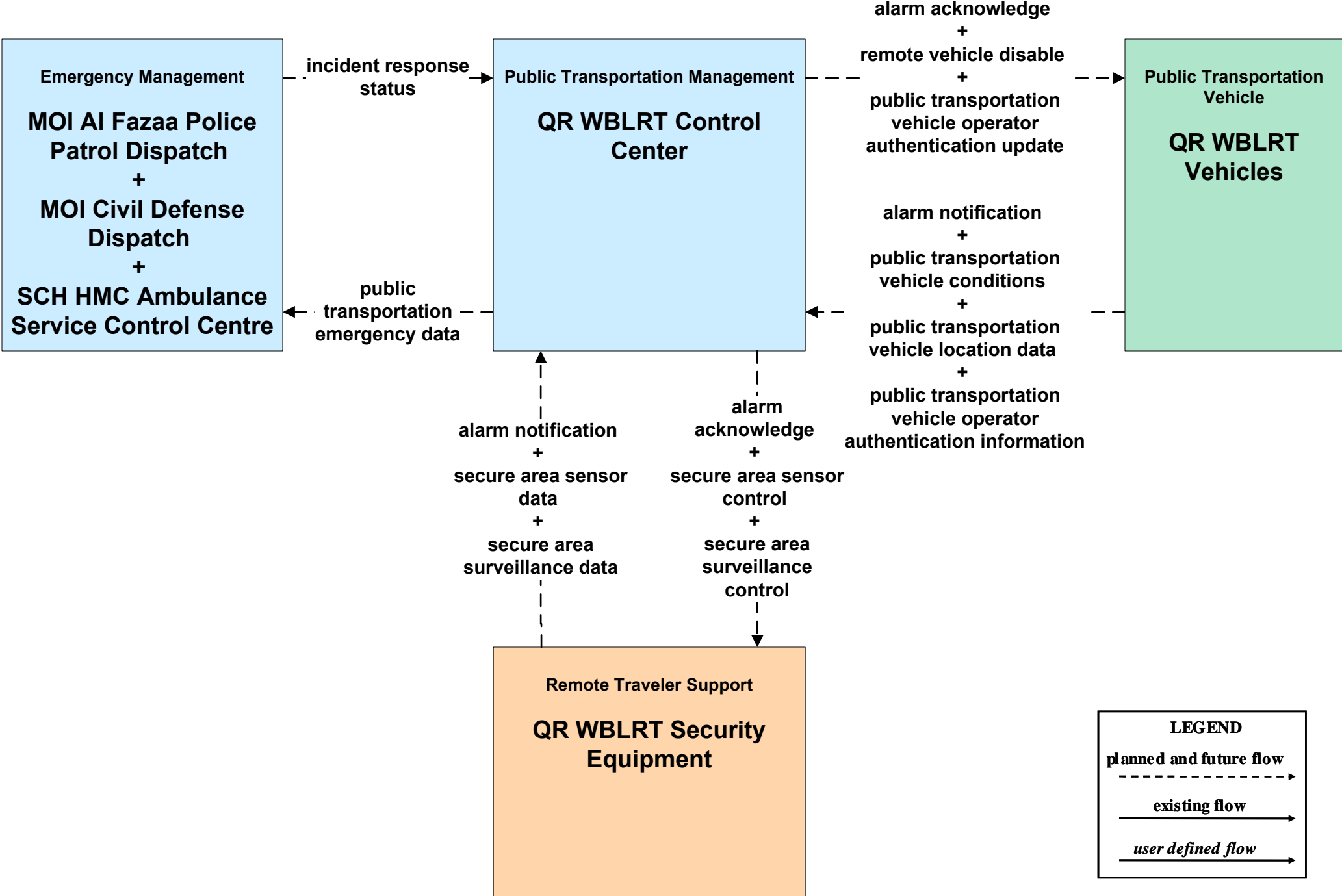
APTS05 - Public Transportation Security Mowasalat Bus



APTS05 - Public Transportation Security Qatar Railways



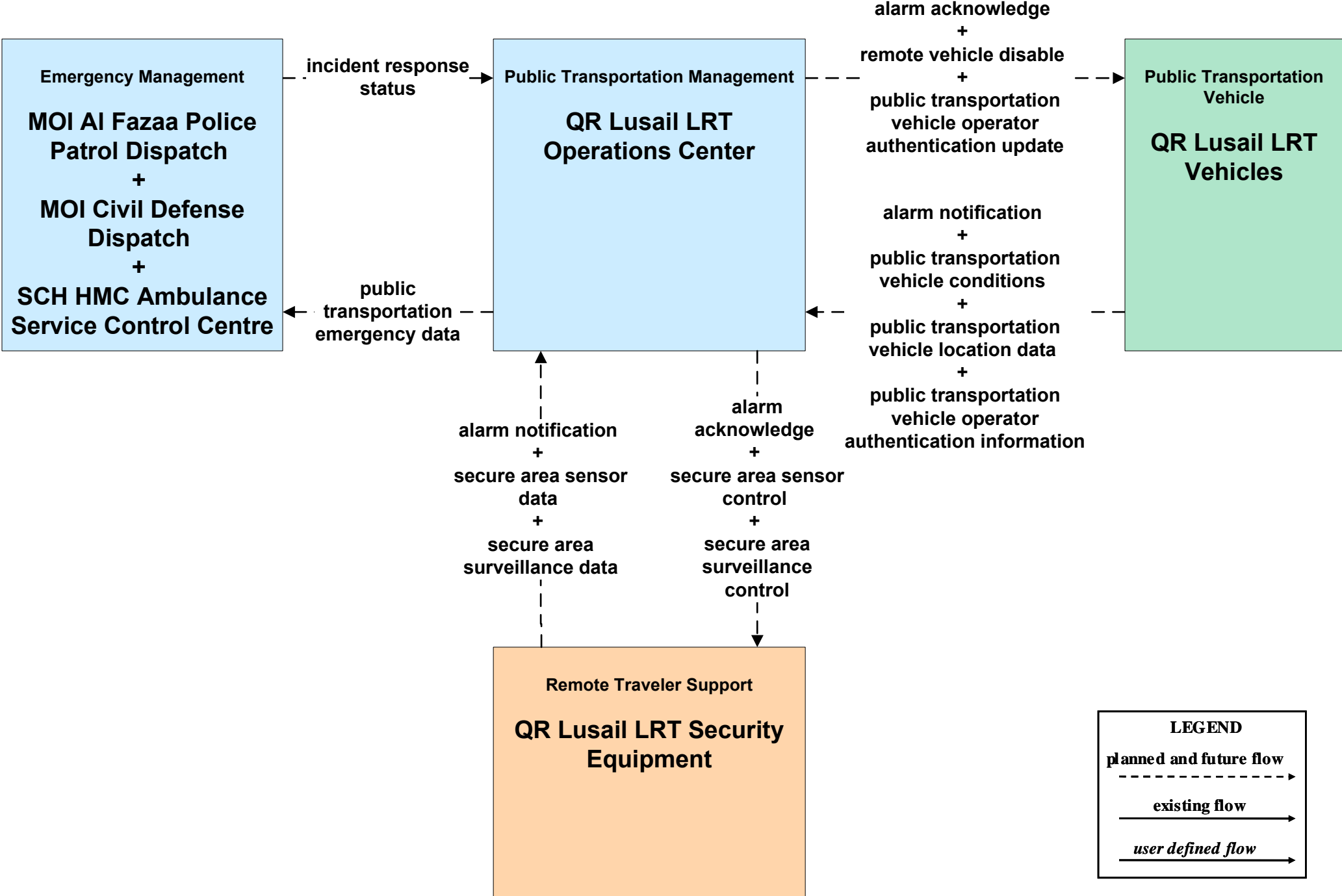
**APTS05 - Public Transportation Security
WBLRT (West Bay LRT)**



LEGEND

- planned and future flow* (dashed arrow)
- existing flow* (solid arrow)
- user defined flow* (solid arrow with line)

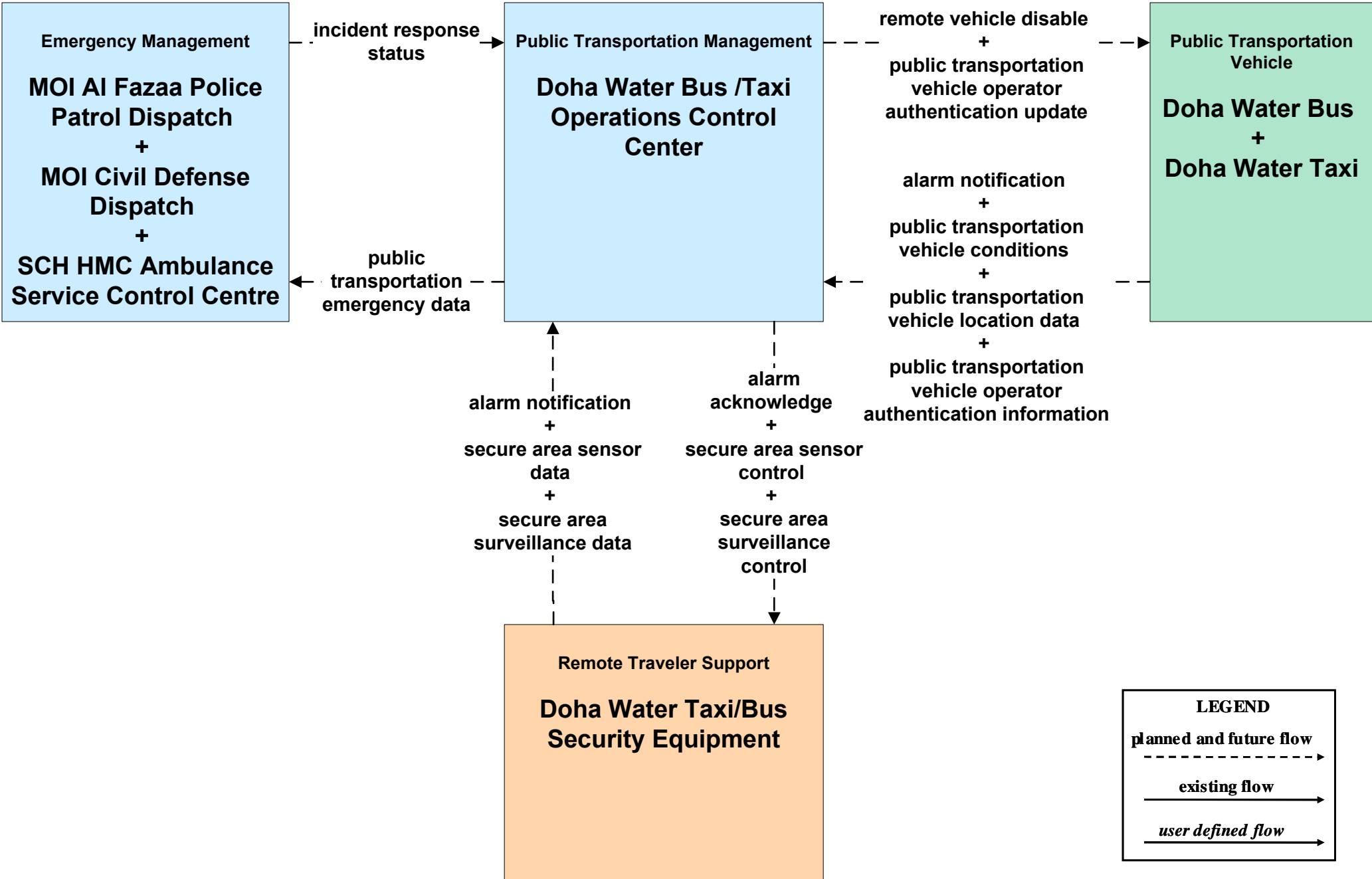
APTS05 - Public Transportation Security Lusail LRT



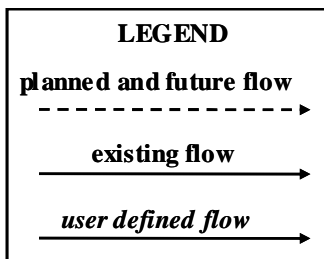
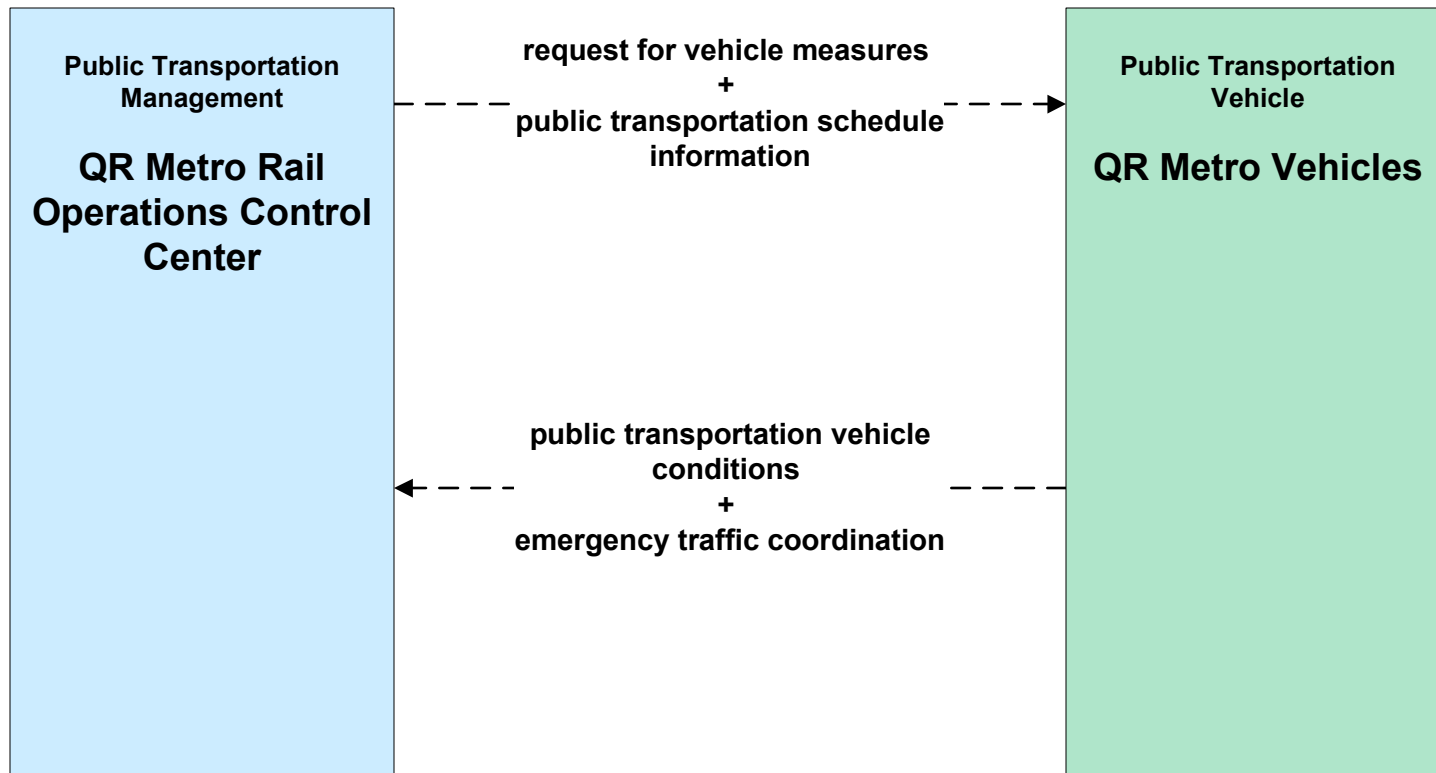
LEGEND

- planned and future flow**
- existing flow**
- user defined flow**

**APTS05 - Public Transportation Security
Doha Water Bus and Taxi**

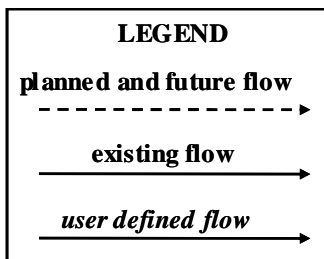
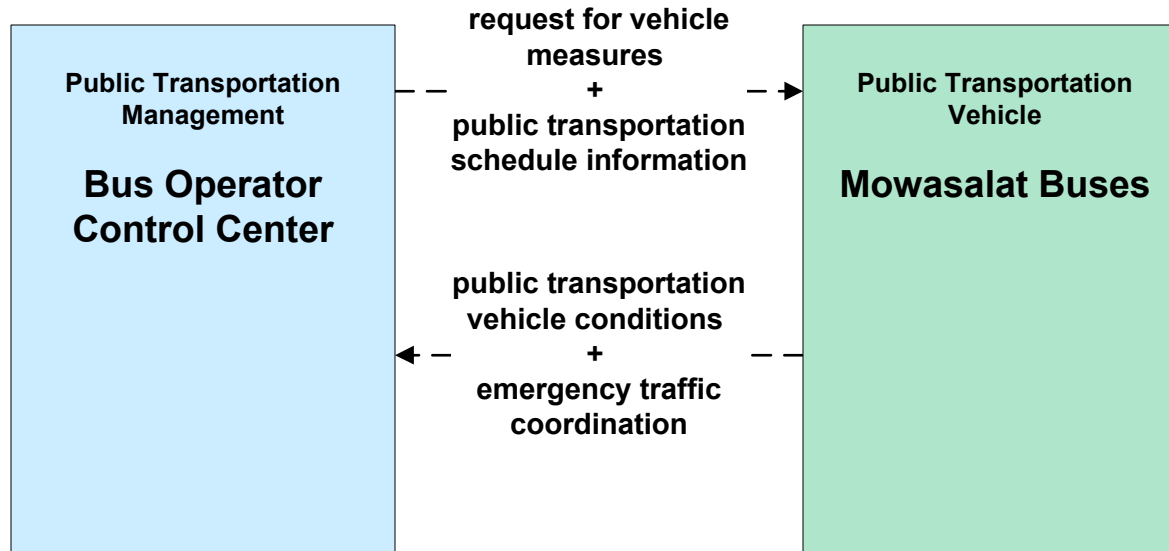


**APTS06 - Public Transportation Fleet Management
Doha Metro**

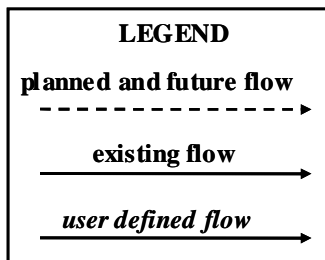
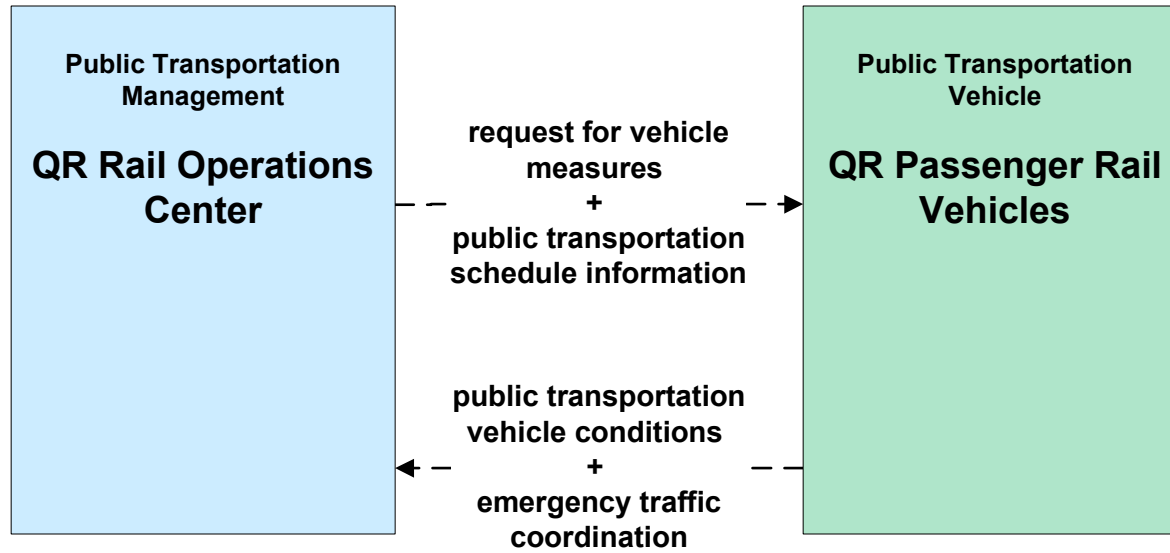


APTS06 - Public Transportation Fleet Management

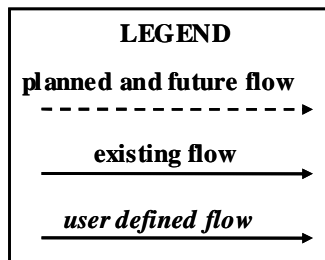
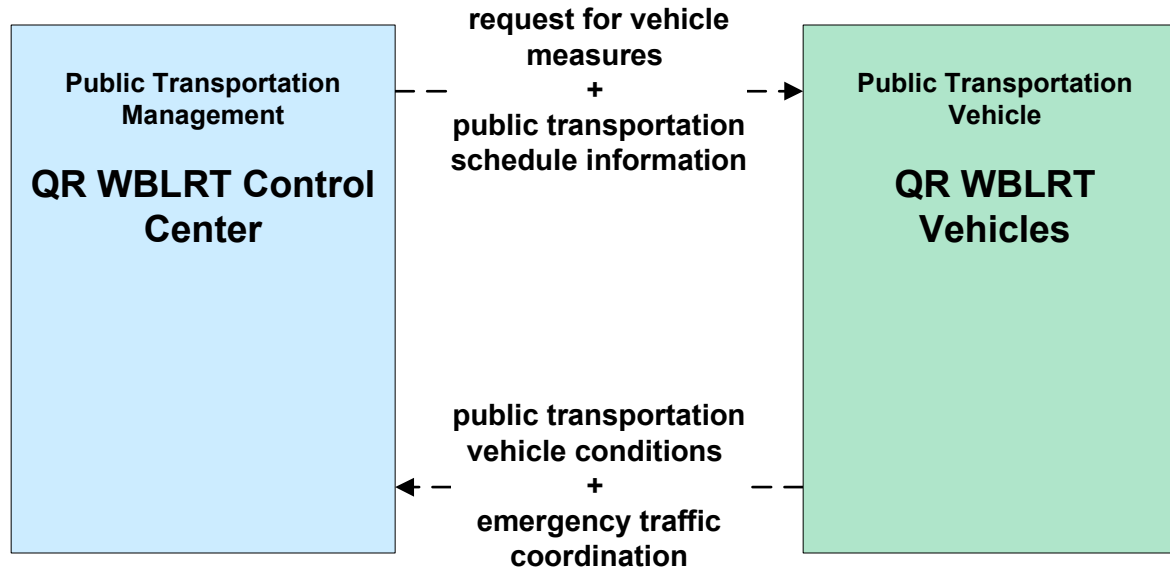
Mowasalat Bus



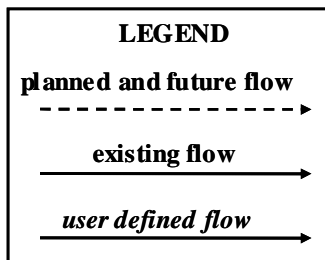
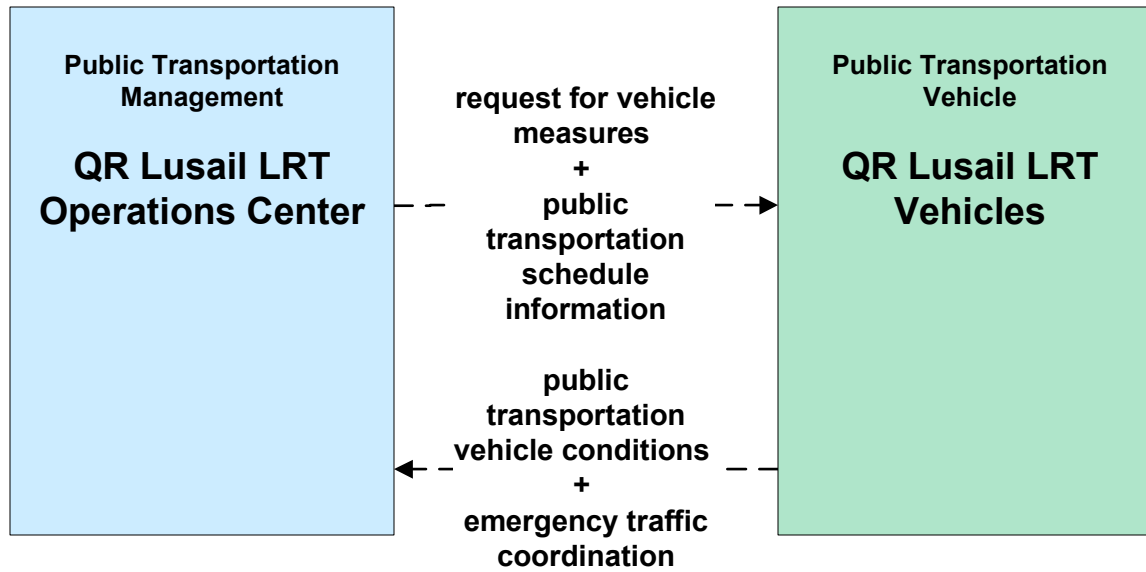
**APTS06 - Public Transportation Fleet Management
Qatar Railways**



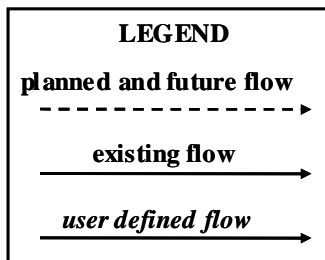
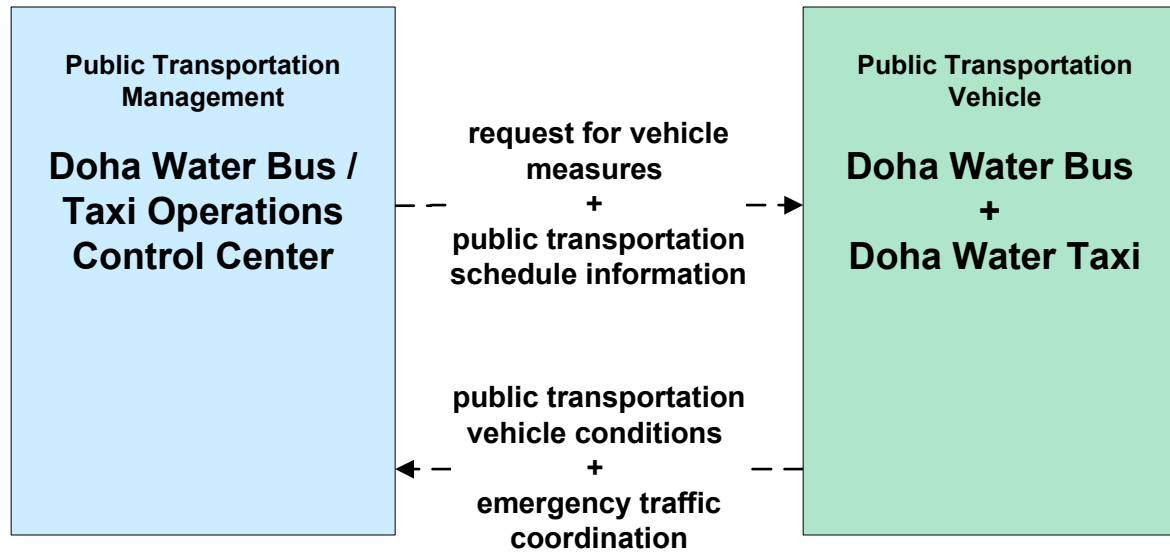
APTS06 - Public Transportation Fleet Management WBLRT



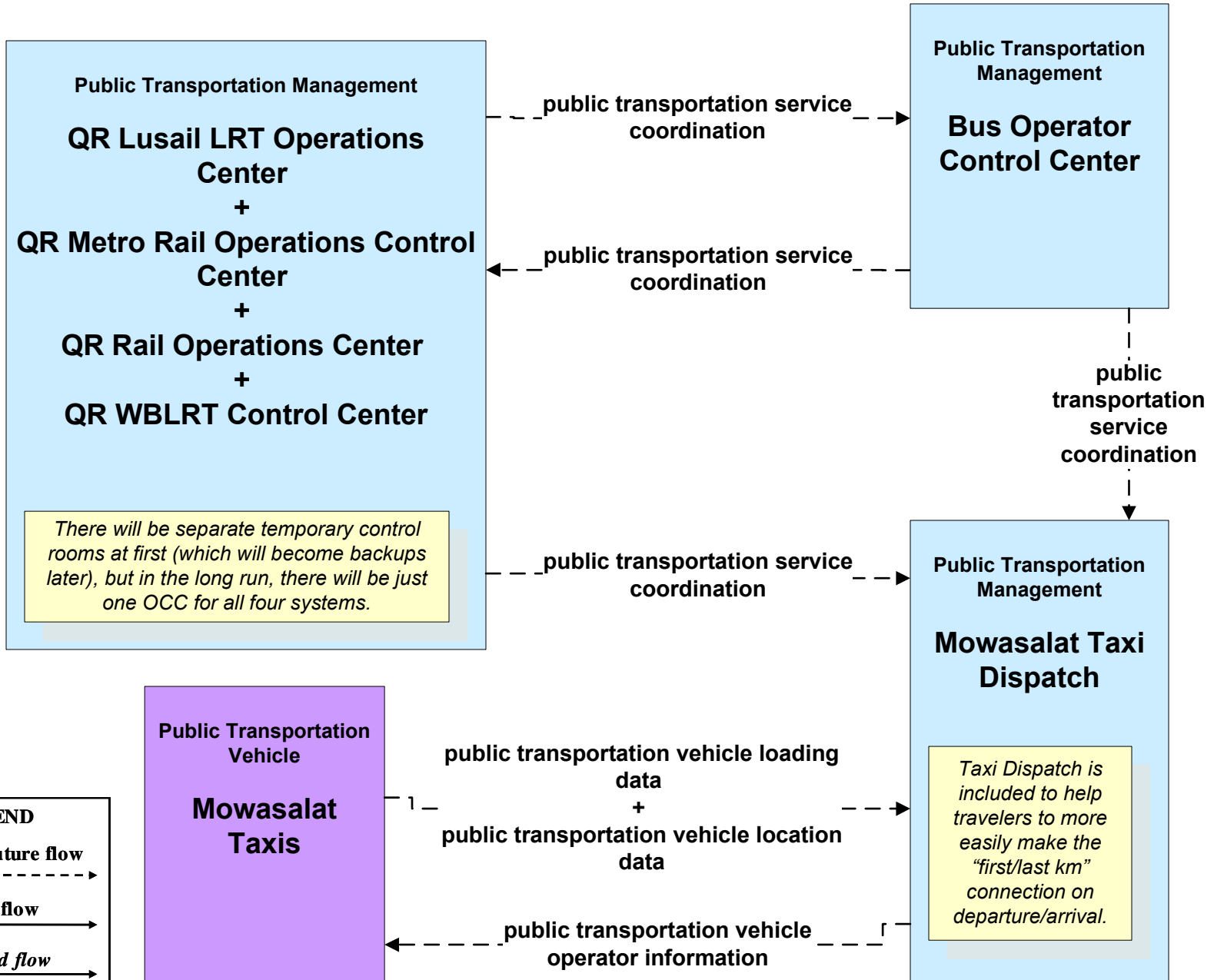
APTS06 - Public Transportation Fleet Management Lusail LRT



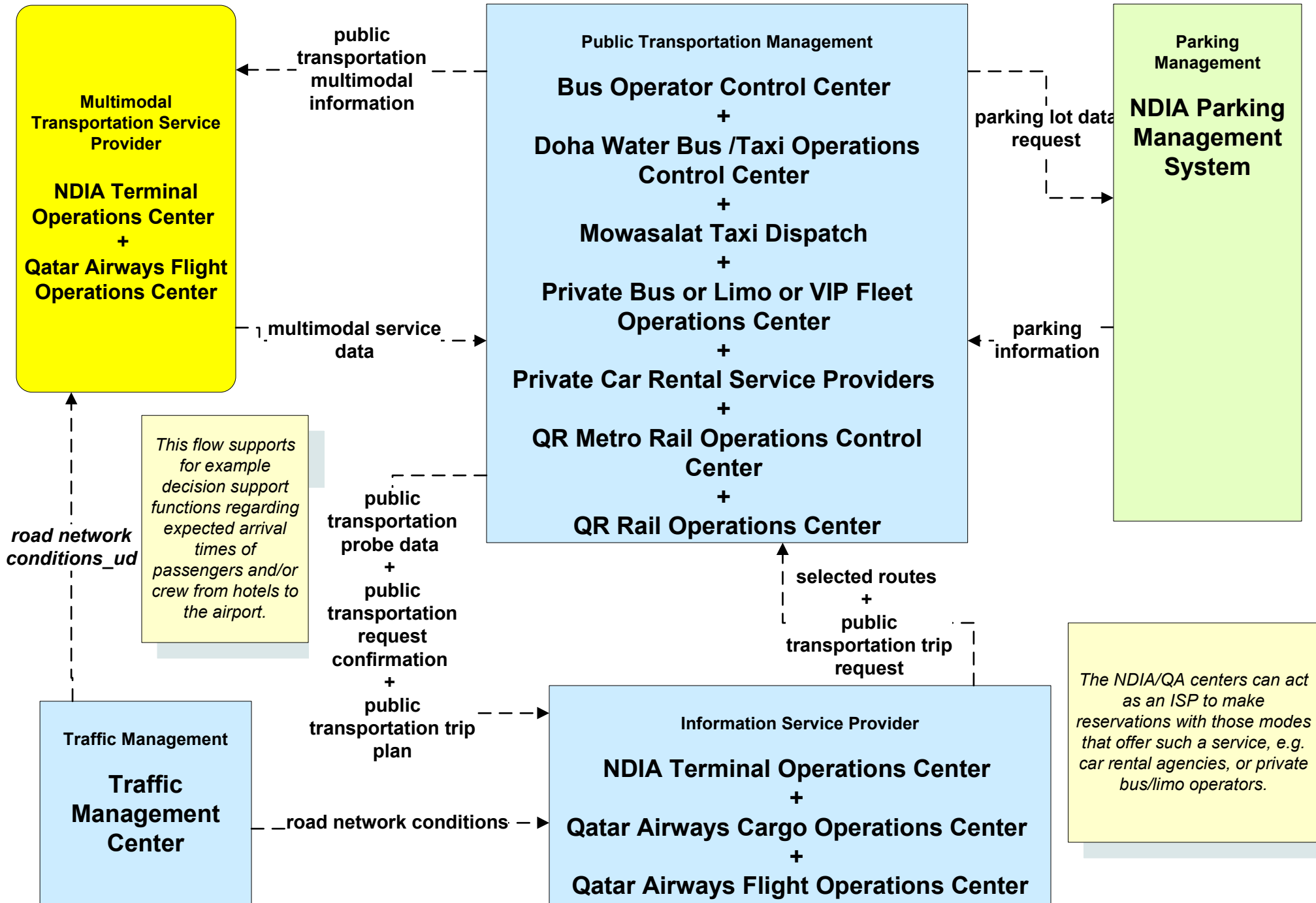
**APTS06 - Public Transportation Fleet Management
Doha Water Bus**



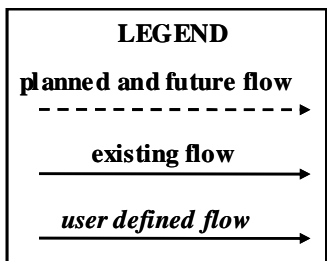
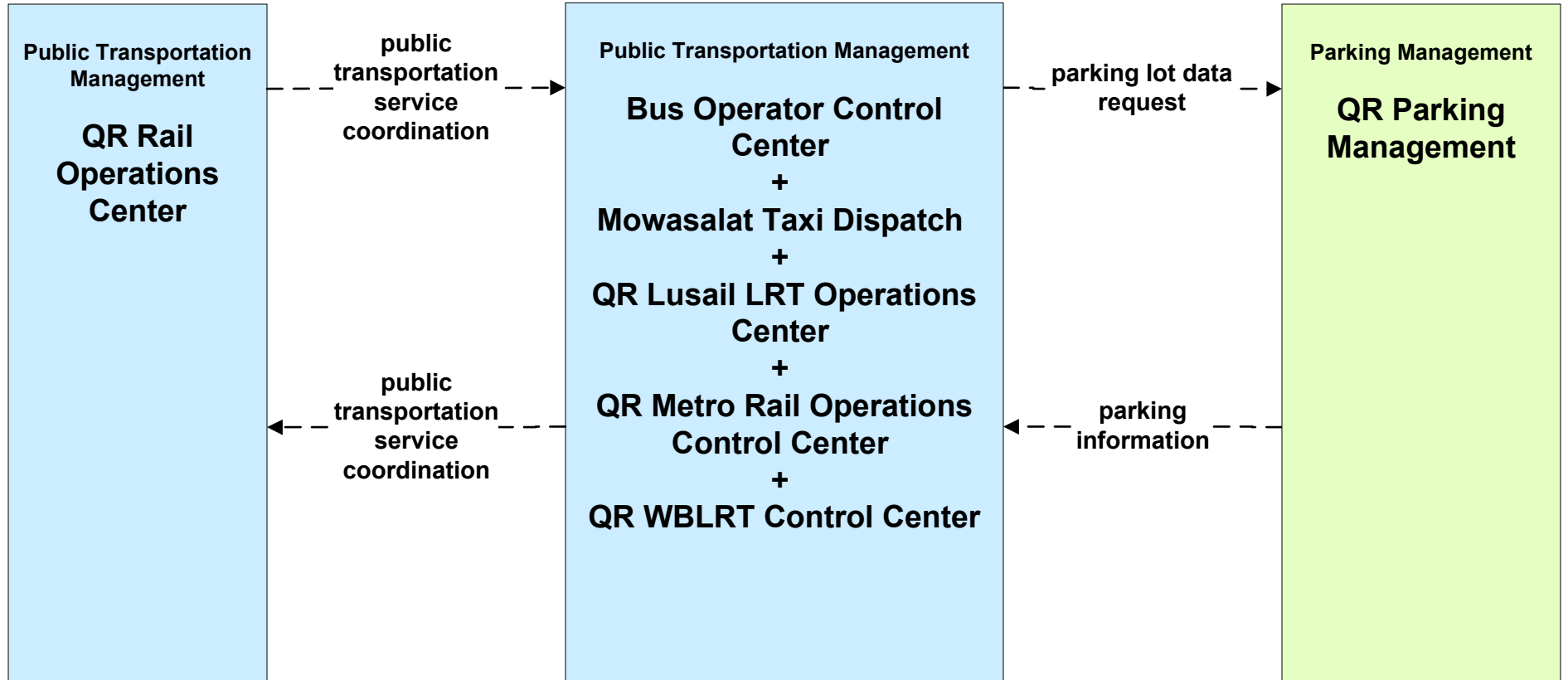
APTS07 - Multimodal Coordination Public Transportation Information Exchange



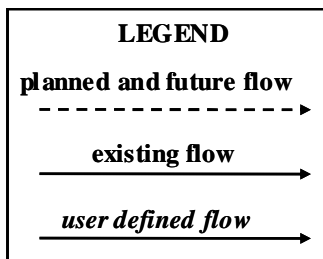
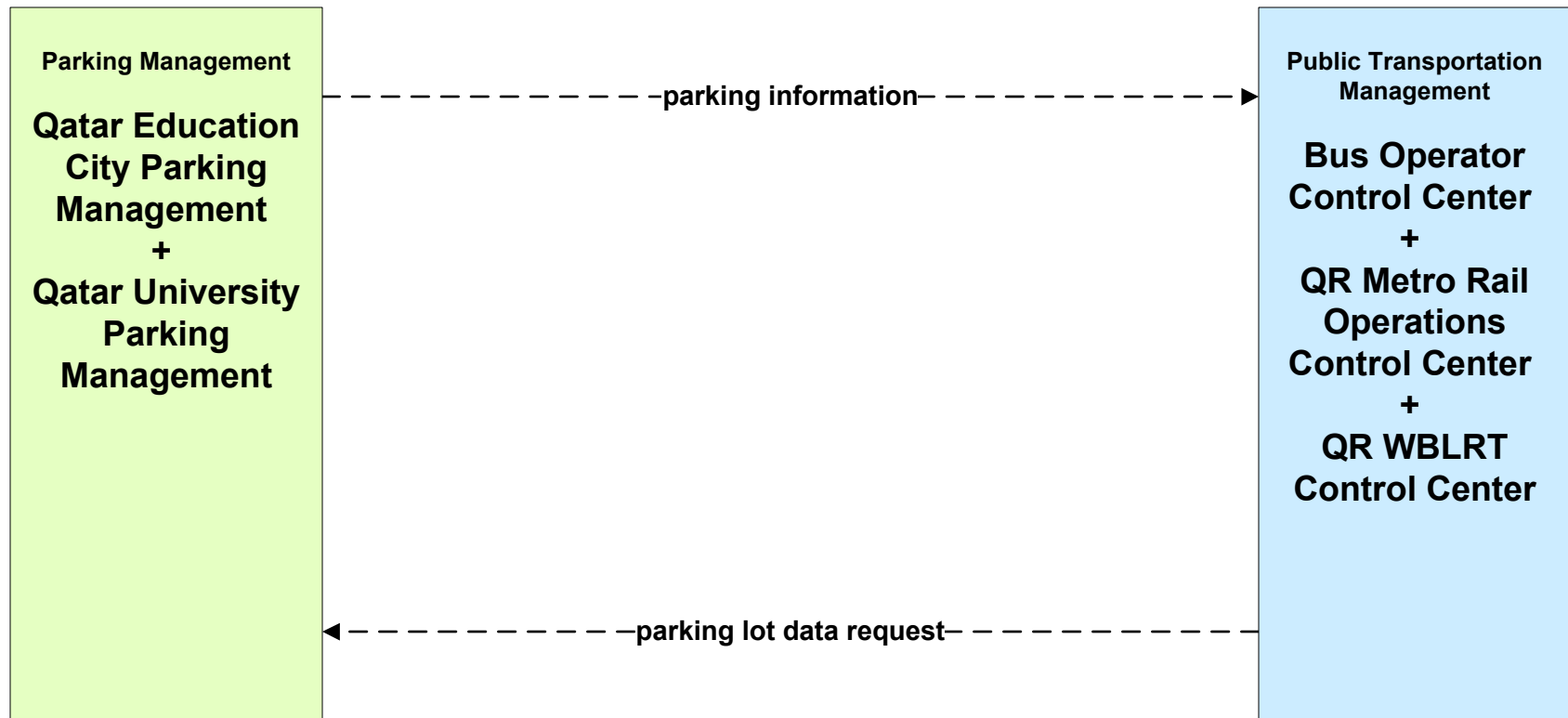
APTS07 - Multimodal Coordination NDIA



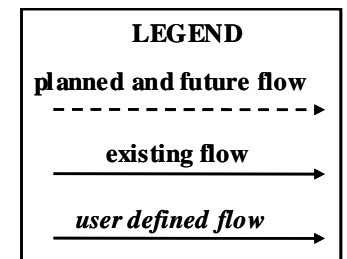
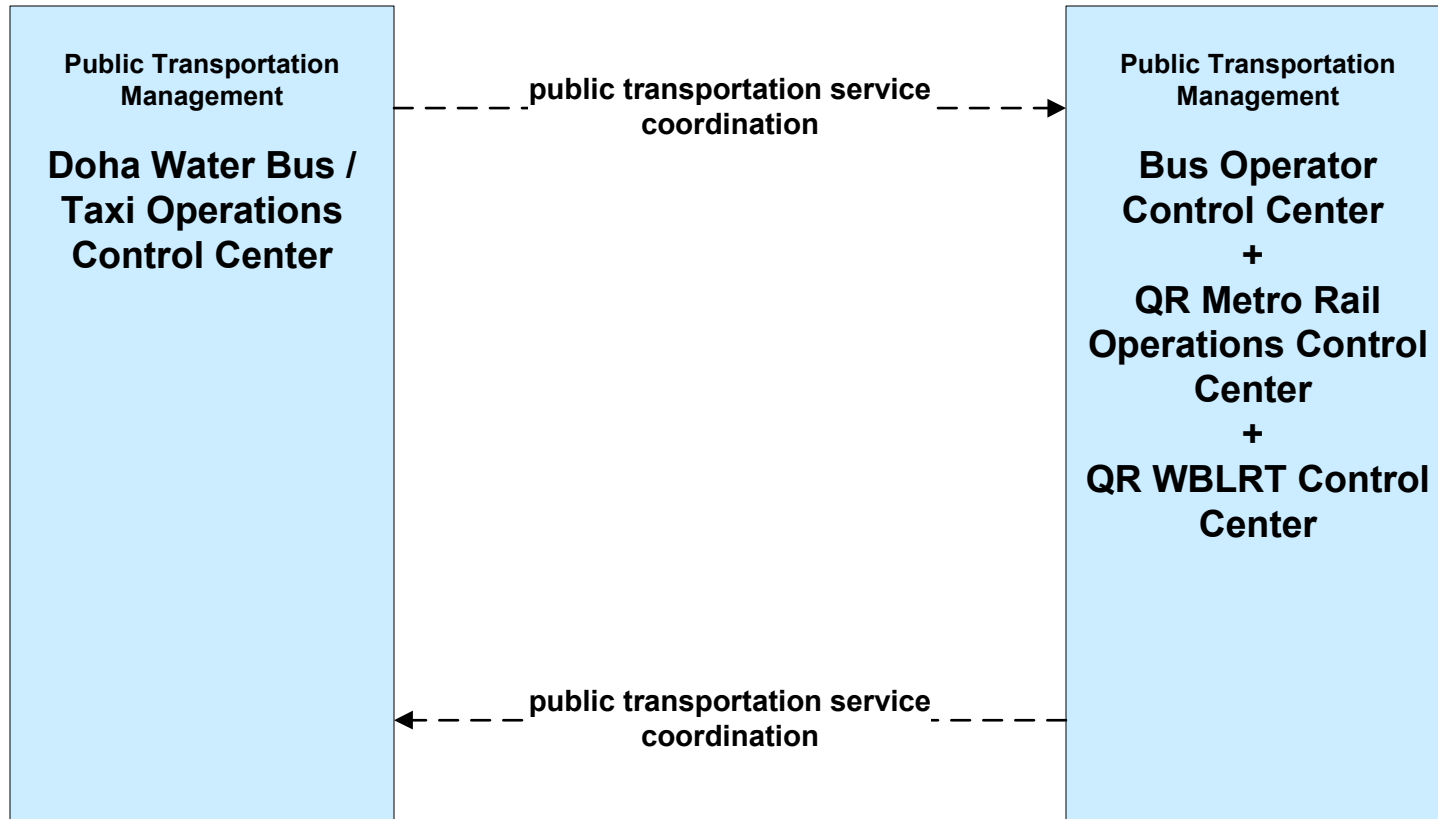
APTS07 - Multimodal Coordination Qatar Railways



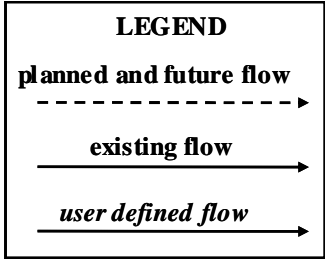
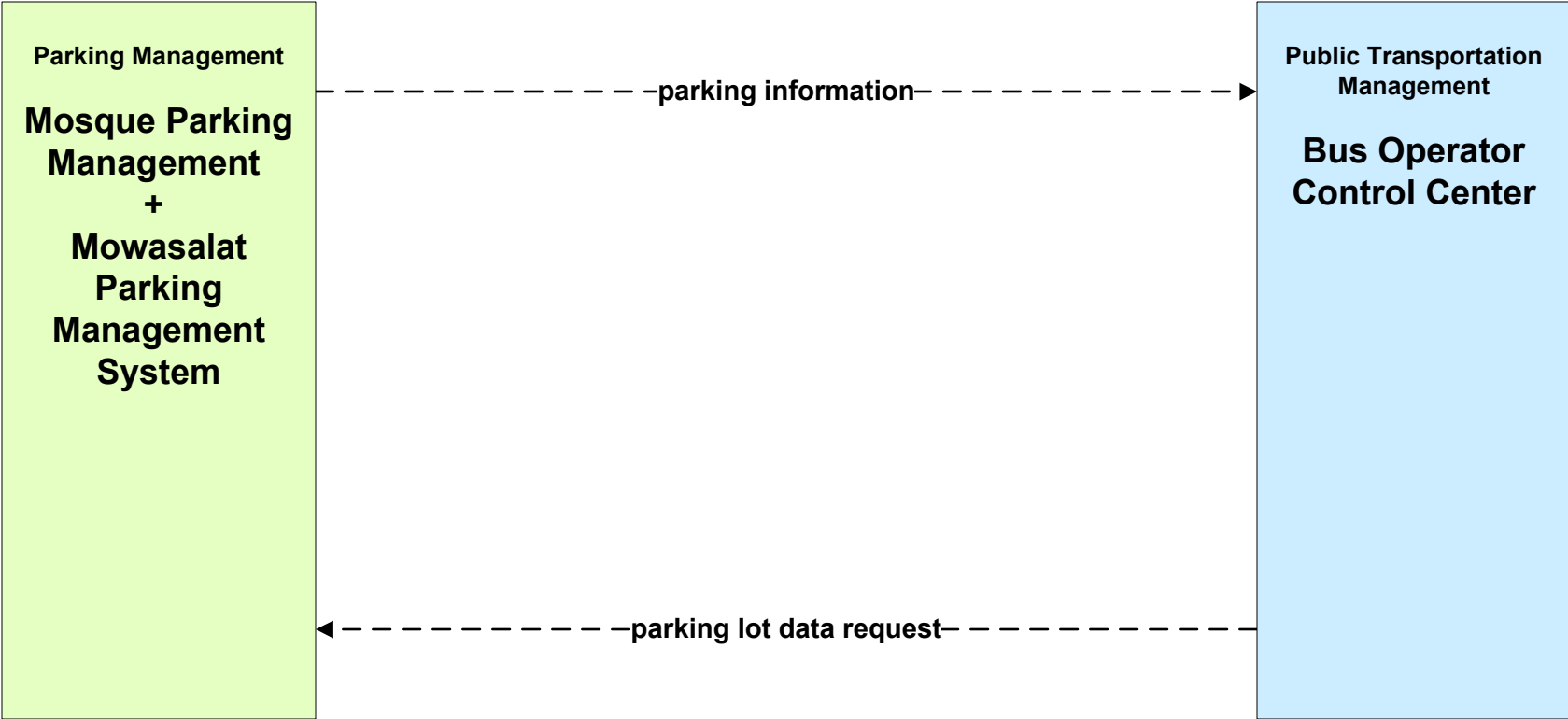
APTS07 - Multimodal Coordination
Qatar Education City and Qatar University



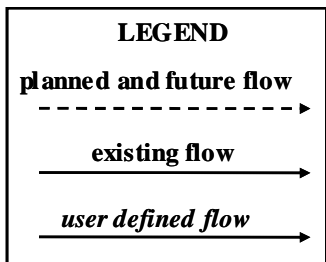
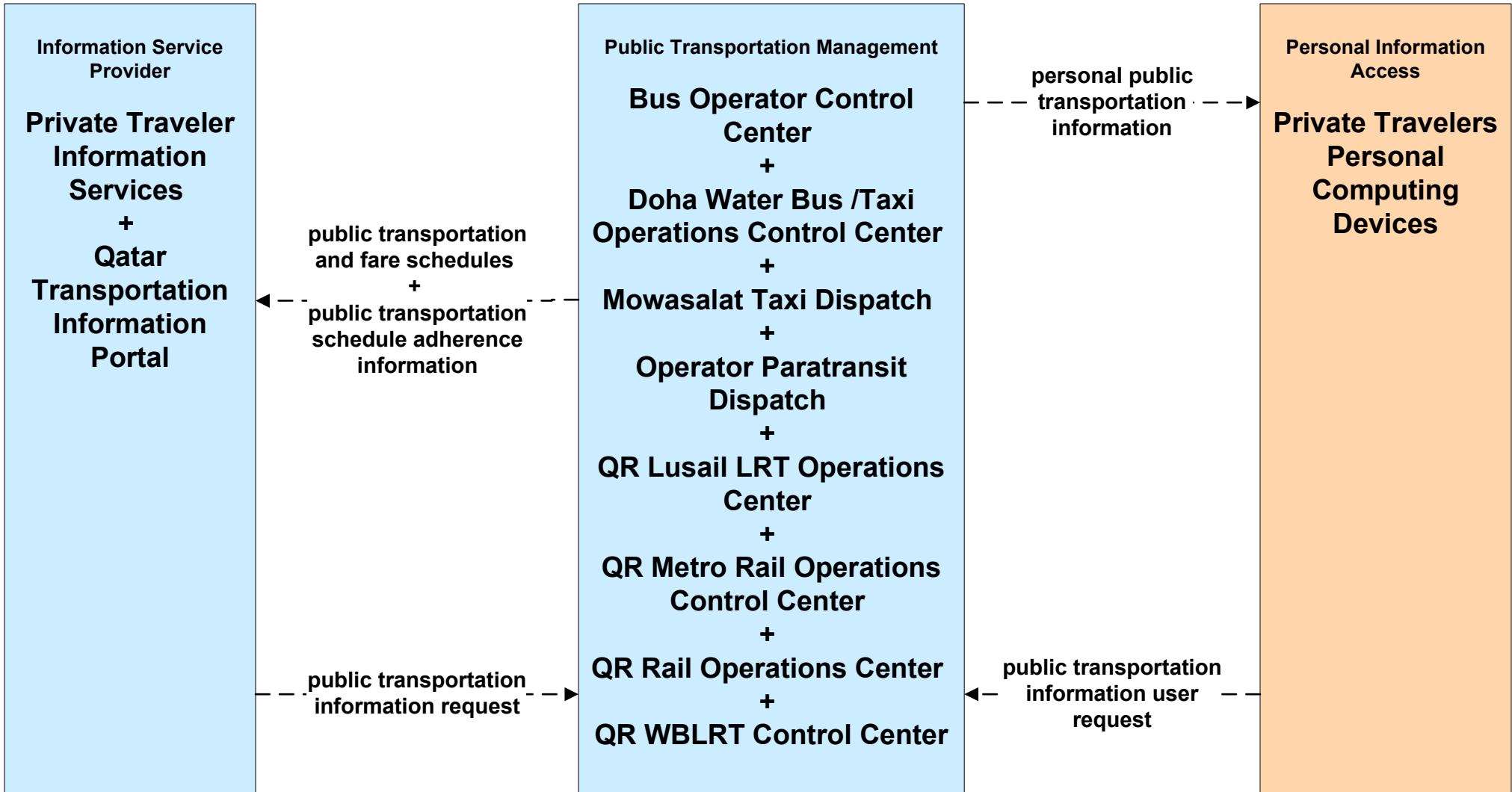
**APTS07 - Multimodal Coordination
Doha Bay Water Bus and Taxi**



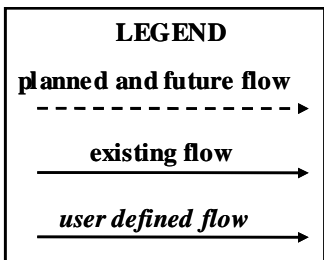
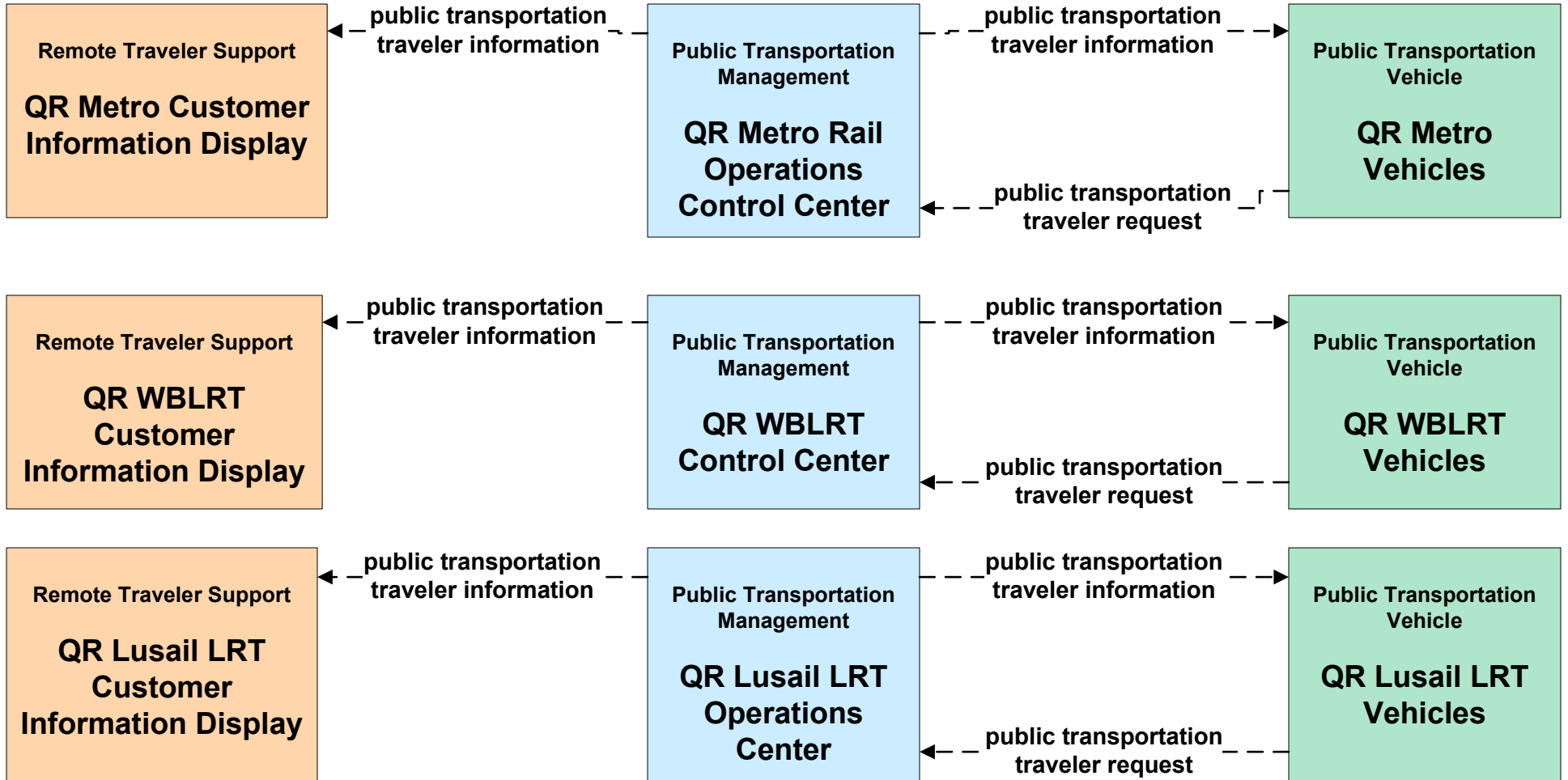
**APTS07 - Multimodal Coordination
Mosque Parking**



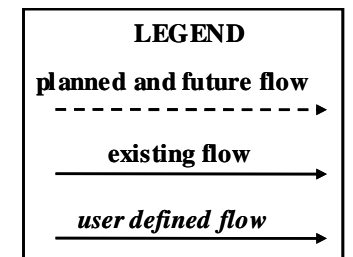
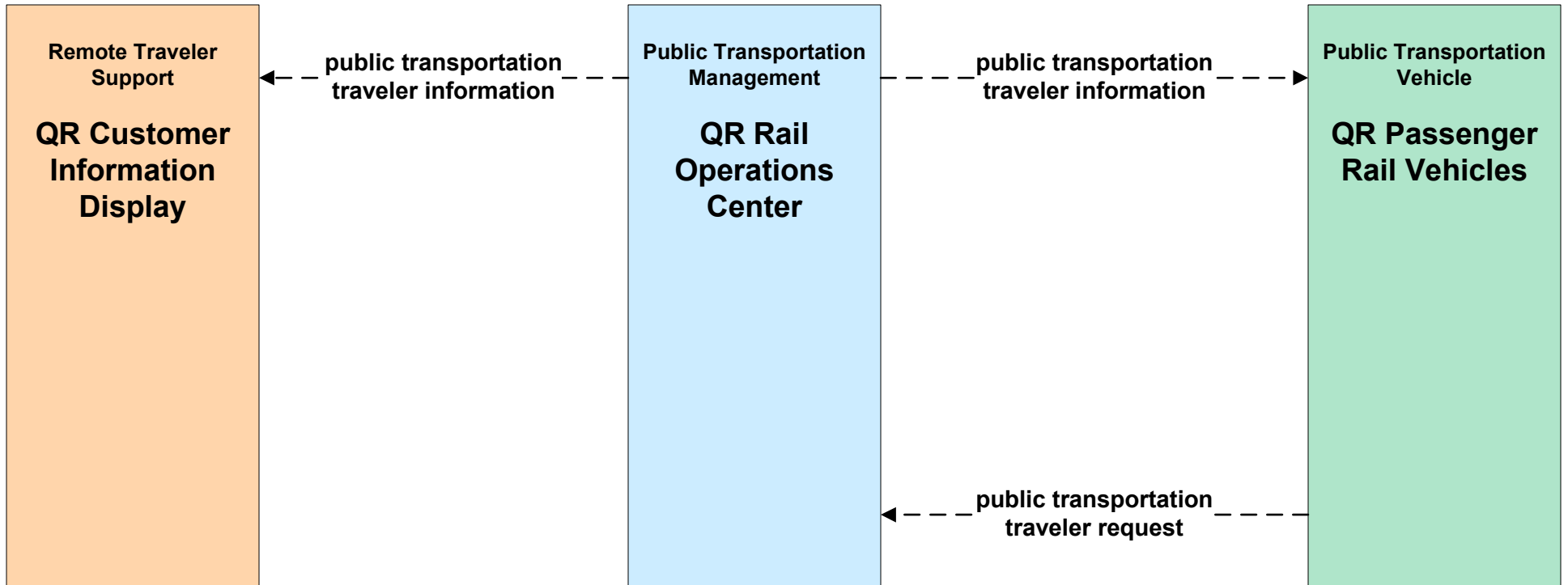
**APTS08 - Public Transportation Traveler Information
Private Traveler Information**



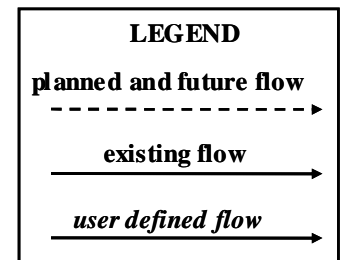
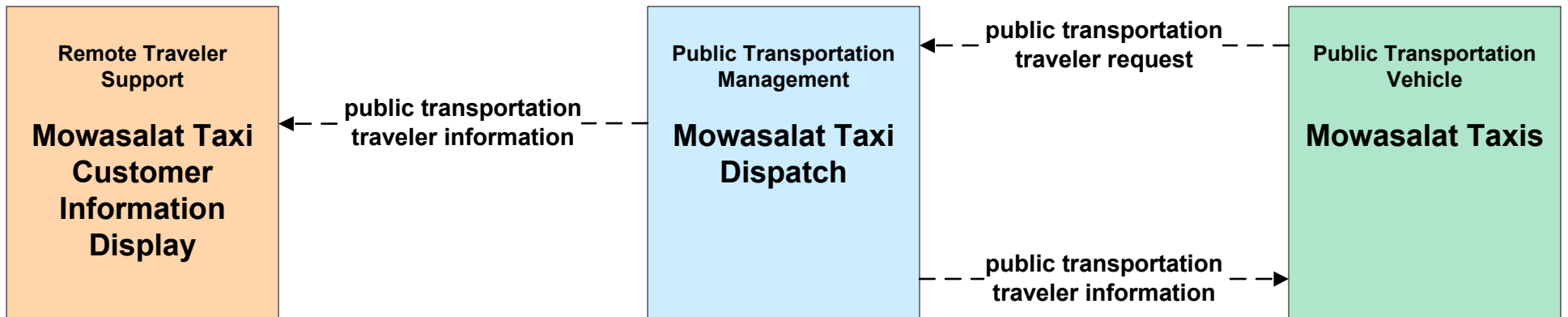
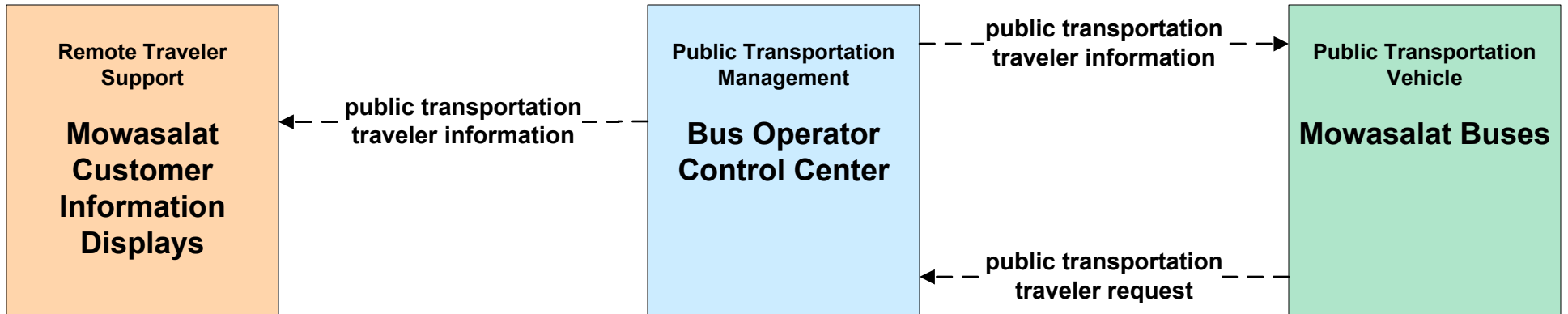
APTS08 - Public Transportation Traveler Information Rail



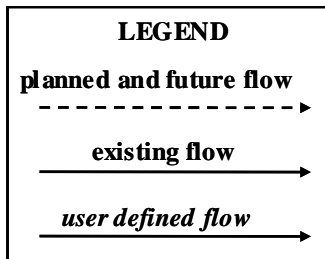
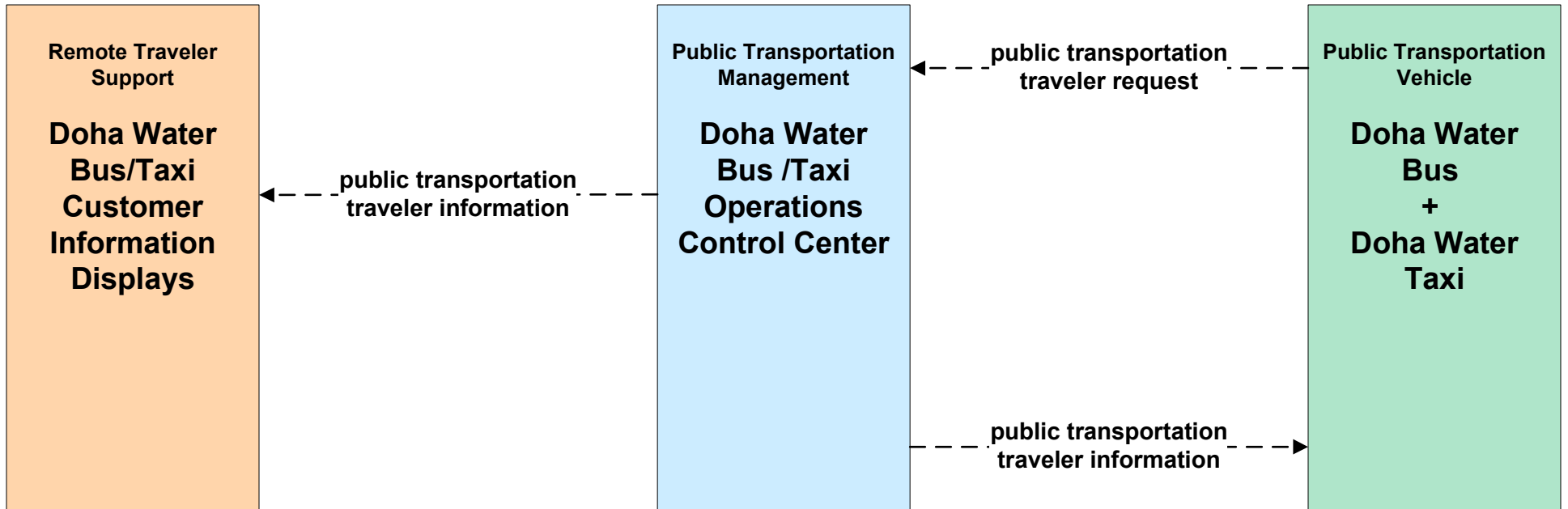
APTS08 - Public Transportation Traveler Information Qatar Passenger Rail



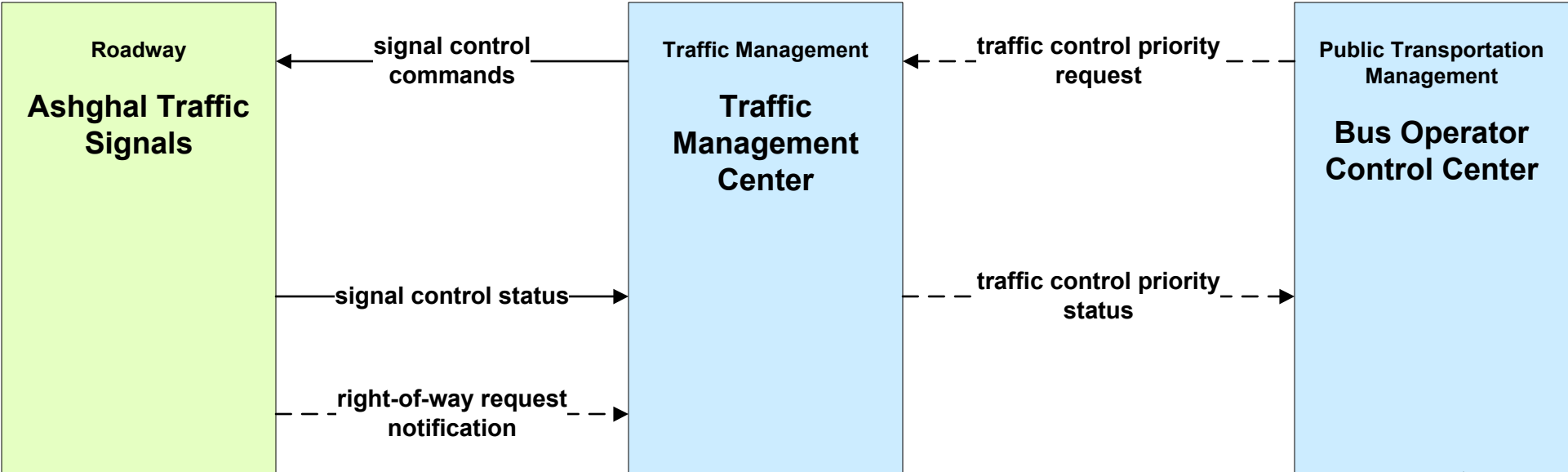
**APTS08 - Public Transportation Traveler Information
Mowasalat**



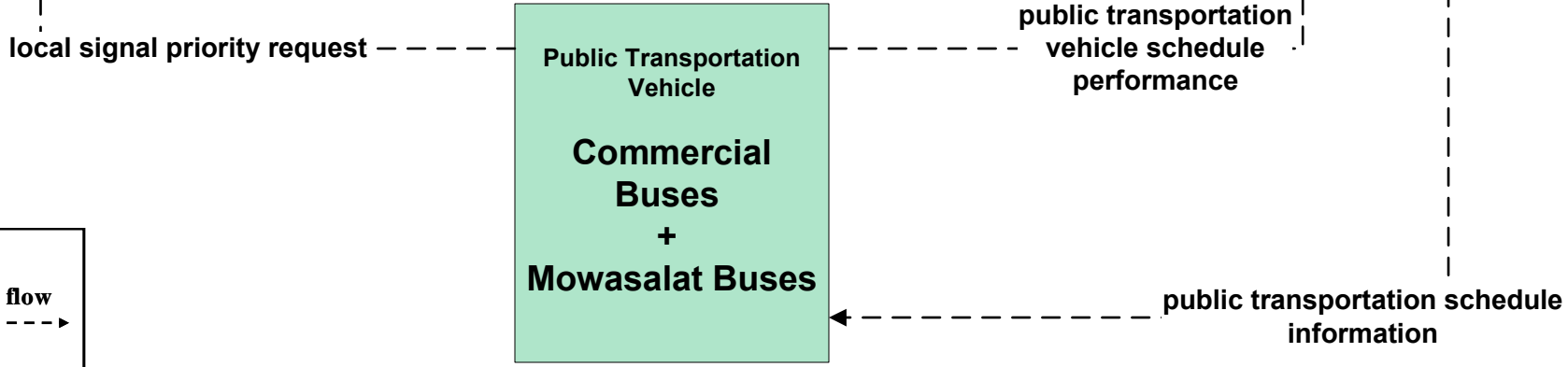
**APTS08 - Public Transportation Traveler Information
Doha Bay Water Taxi**



APTS09 - Public Transportation Signal Priority Mowasalat Buses



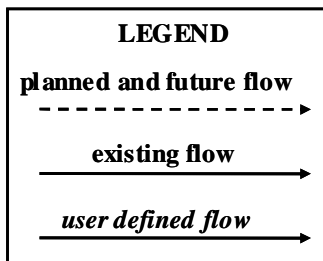
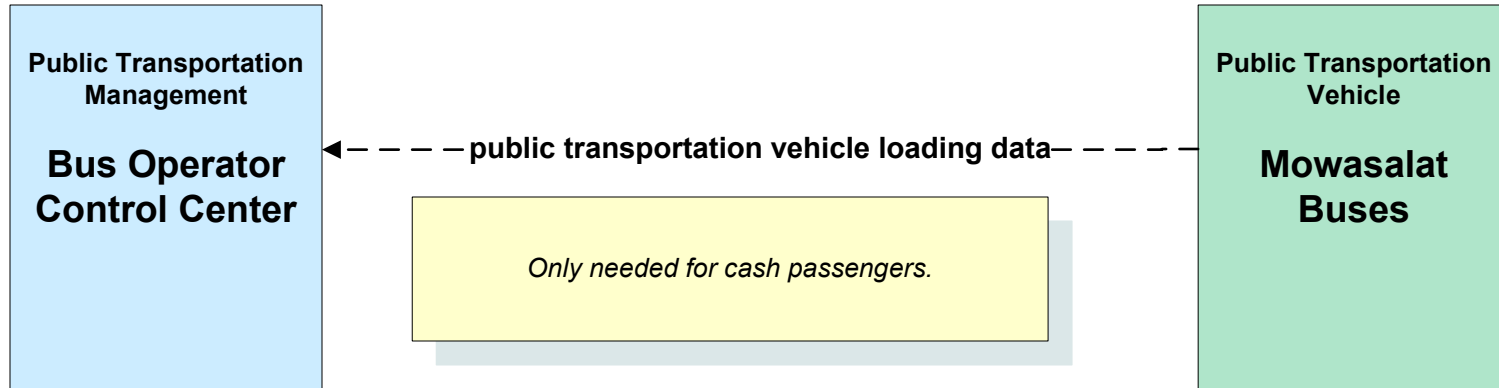
Need to determine if signal priority will be DSRC or C2C.



LEGEND

- planned and future flow* →
- existing flow* →
- user defined flow* →

APTS10 – Public Transportation Passenger Counting Mowasalat



**APTS10 – Public Transportation Passenger Counting
Doha Bay Water Taxi**

