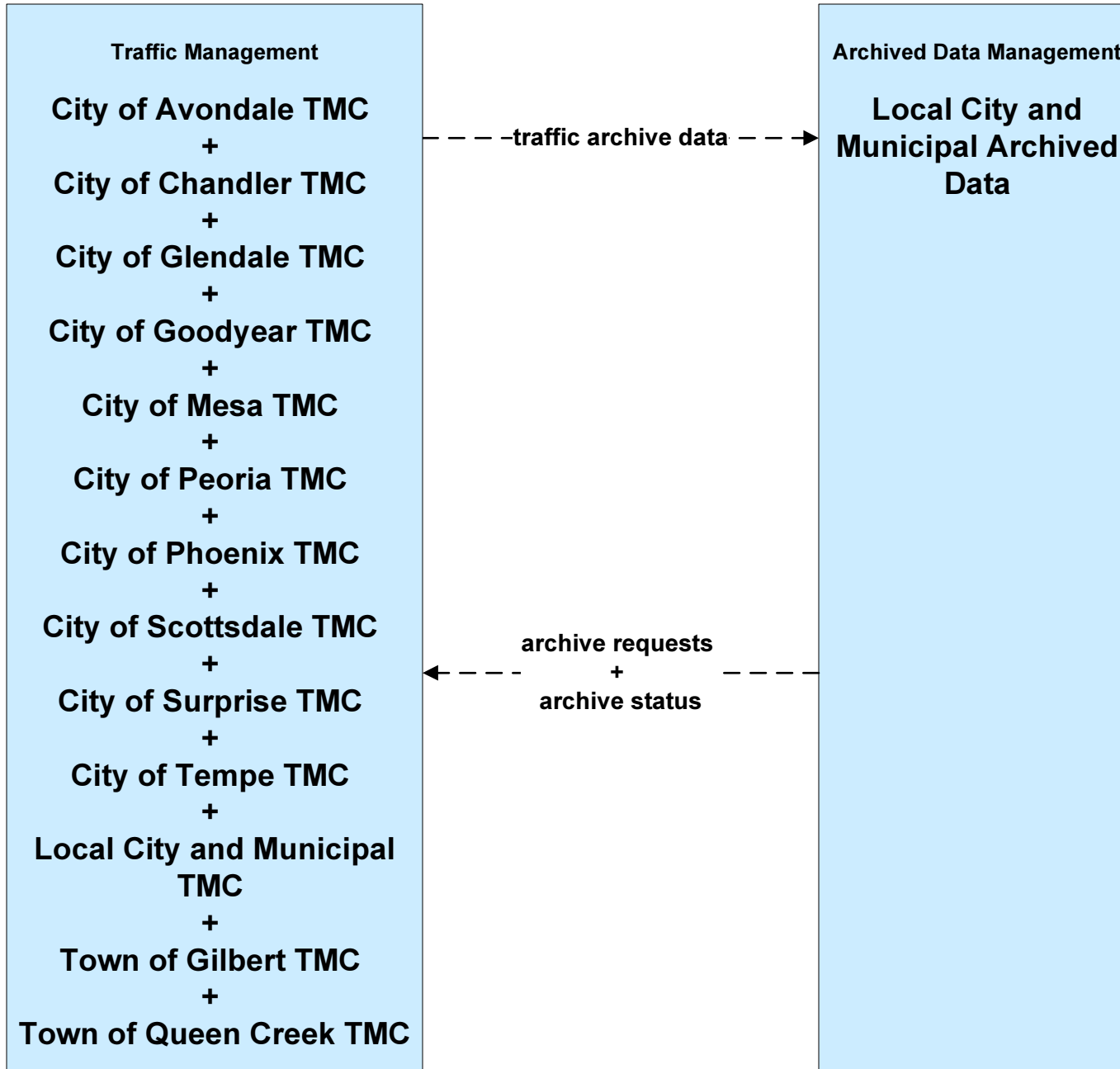# AD1 - ITS Data Mart
Local Archives

Traffic Management

City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

Archived Data Management

Local City and Municipal Archived Data

- - - traffic archive data - - →

archive requests
+
archive status
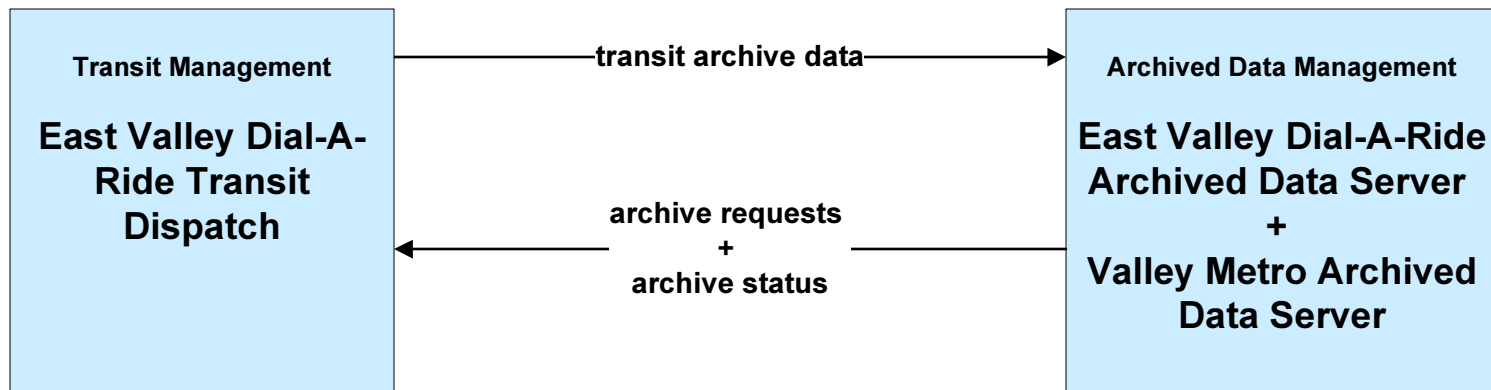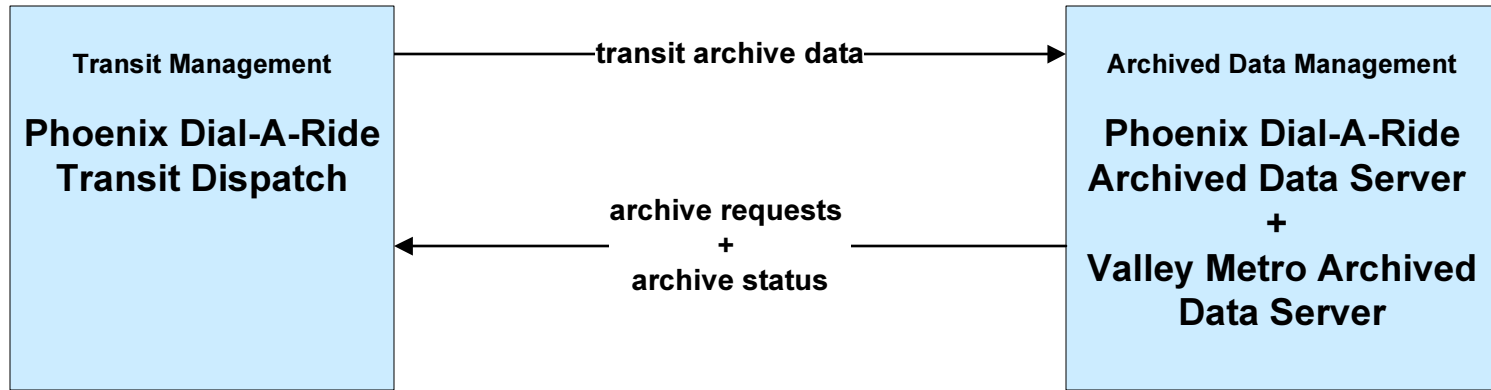←- - - - - - -

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND

planned and future flow
- - - - - - - - - - - →

existing flow
————————→

user defined flow
————————→
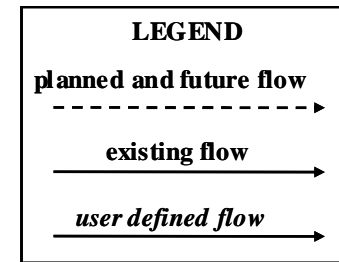
AD1 - ITS Data Mart
Local Dial-A-Ride Transit Systems

Transit Management

Phoenix Dial-A-Ride Transit Dispatch

—transit archive data—→

Archived Data Management

Phoenix Dial-A-Ride Archived Data Server
+
Valley Metro Archived Data Server

←—— archive requests + archive status ——

Transit Management

East Valley Dial-A-Ride Transit Dispatch

—transit archive data—→

Archived Data Management

East Valley Dial-A-Ride Archived Data Server
+
Valley Metro Archived Data Server
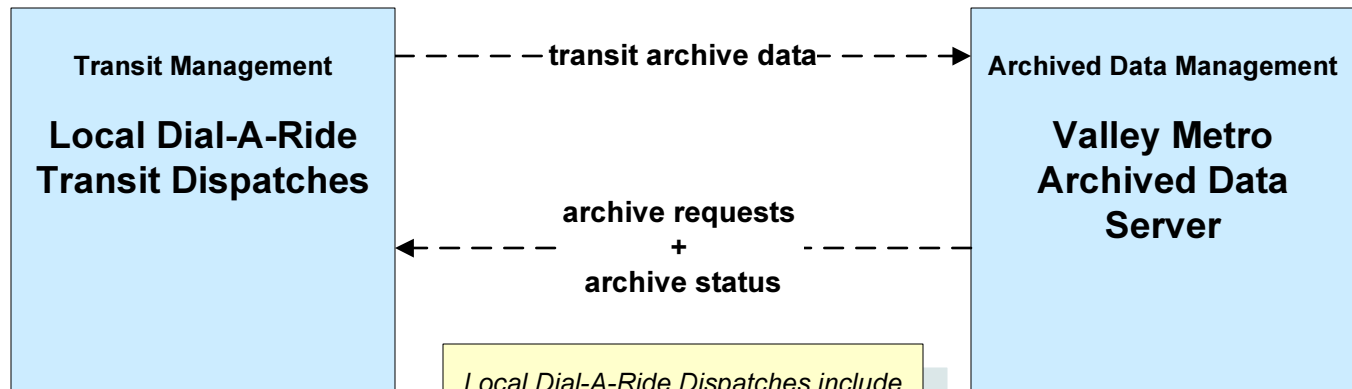
←—— archive requests + archive status ——

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
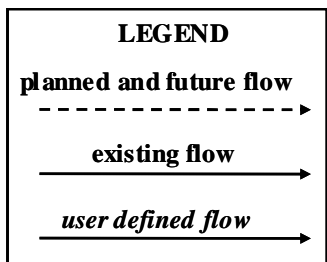
Transit Management

Local Dial-A-Ride Transit Dispatches

– – transit archive data – –→

Archived Data Management

Valley Metro Archived Data Server

←– – archive requests + archive status – –

LEGEND

planned and future flow – – – – →

existing flow ——→

user defined flow ——→

Local Dial-A-Ride Dispatches include Glendale DAR, Northwest Valley DAR, El Mirage DAR, and MCDRTS

AD1 - ITS Data Mart
Phoenix Public Transit

Archived Data Management

Phoenix Public Transit Archived Data Server

Transit Management

Phoenix Public Transit OCC

archived data product requests
+
transit archive data

archive requests
+
archive status

LEGEND

planned and future flow

- - - - - - - - - ▶

existing flow

―――――▶

user defined flow

―――――▶
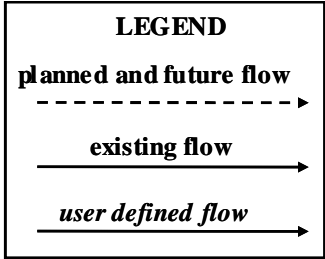
AD2 - ITS Data Warehouse
AZTech RADS

Information Service Provider

ADOT HCRS + MCDOT ATIS

—traveler archive data→

Archived Data Management

AZTech RADS

←emergency archive data—

Emergency Management

Phoenix Fire Department Regional Dispatch Center

Traffic Management

City of Avondale TMC + City of Goodyear TMC + City of Mesa TMC + City of Phoenix TMC + City of Surprise TMC + Town of Gilbert TMC + Town of Queen Creek TMC

←— archive status— — —

—traffic archive data→

Traffic Management

ADOT TOC + City of Chandler TMC + City of Glendale TMC + City of Peoria TMC + City of Scottsdale TMC + City of Tempe TMC + MCDOT TMC

←archive status—

traffic archive data→

AZTech RADS is a system that receives traffic signal timing information, static DMS sign information, and vehicle detector information from TMCs and shares that information with other TMCs connected to RADS
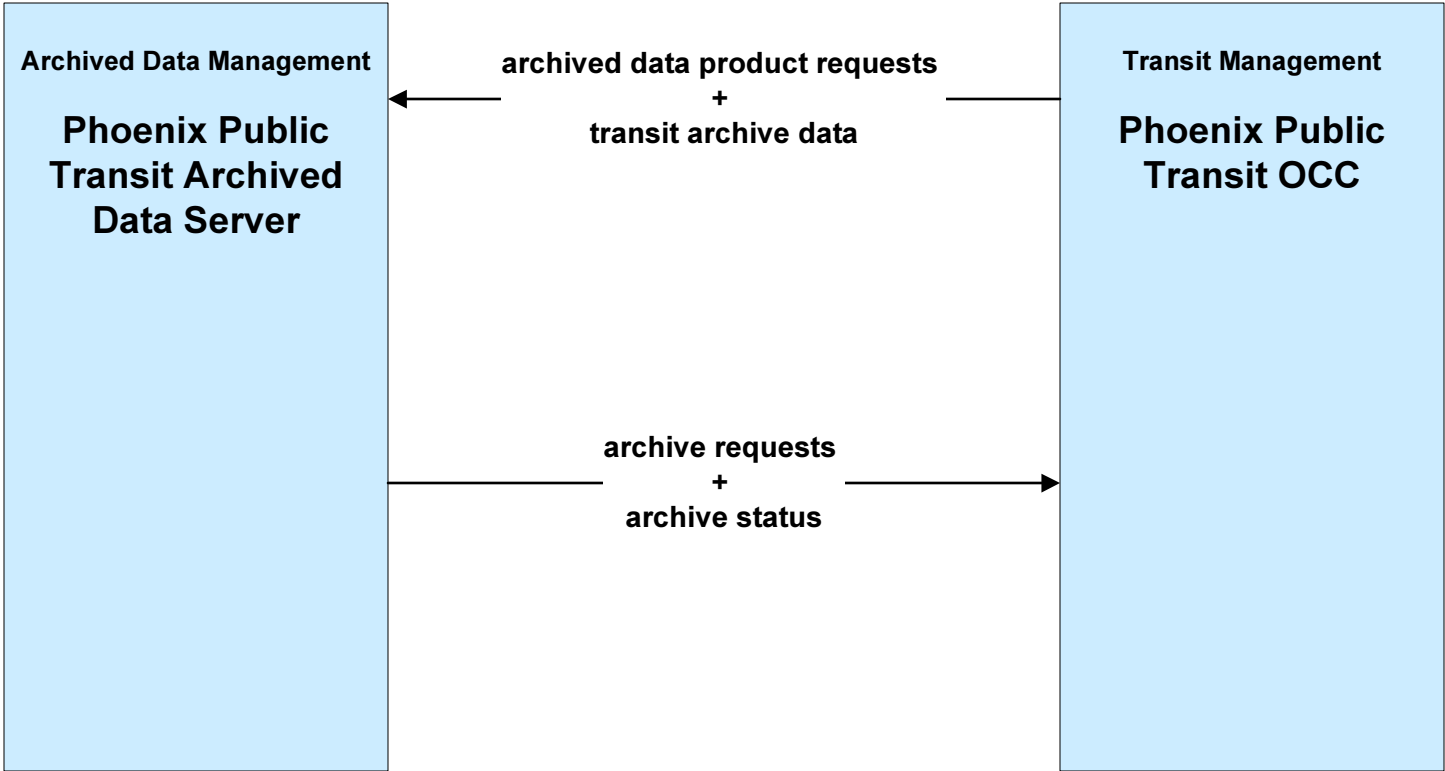
The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
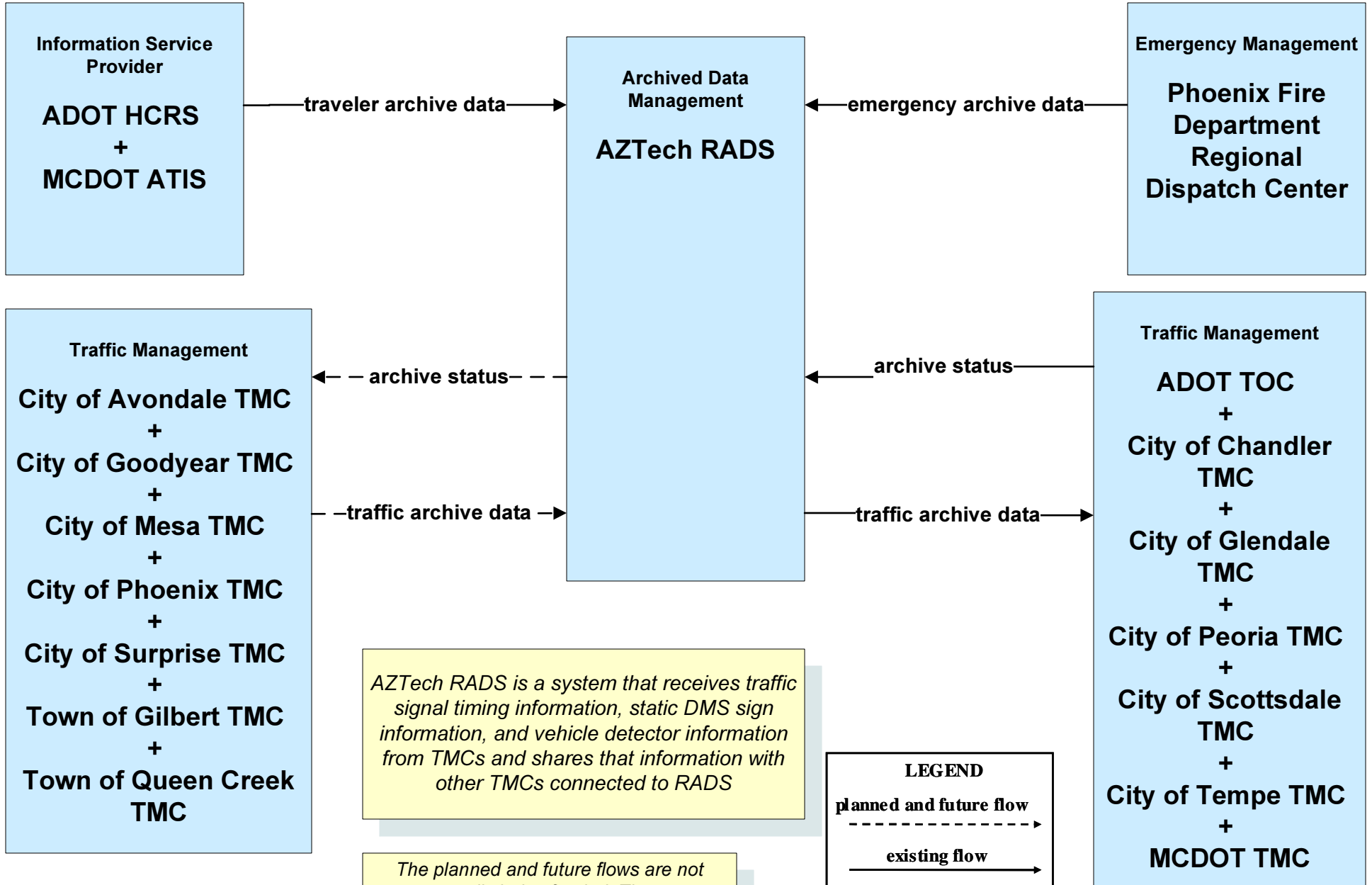
LEGEND
planned and future flow - - - - - →
existing flow →
user defined flow →

APTS01 - Transit Vehicle Tracking
Local Dial-A-Ride Transit Systems
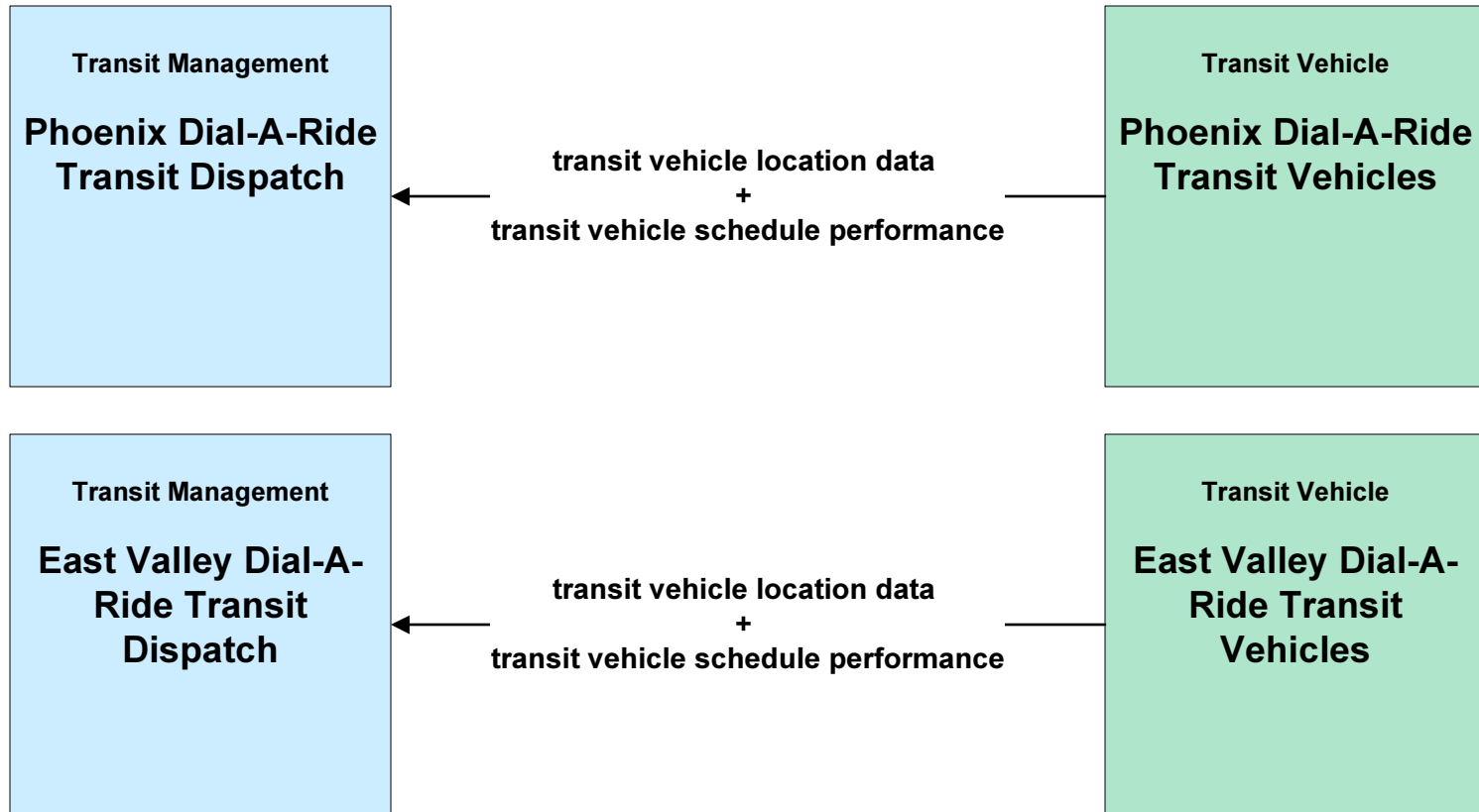
Transit Management
Phoenix Dial-A-Ride Transit Dispatch

Transit Vehicle
Phoenix Dial-A-Ride Transit Vehicles

transit vehicle location data
+
transit vehicle schedule performance

Transit Management
East Valley Dial-A-Ride Transit Dispatch

Transit Vehicle
East Valley Dial-A-Ride Transit Vehicles

transit vehicle location data
+
transit vehicle schedule performance

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Transit Management
Local Dial-A-Ride Transit Dispatches

Transit Vehicle
Local Dial-A-Ride Transit Vehicles

transit vehicle location data
+
transit vehicle schedule performance
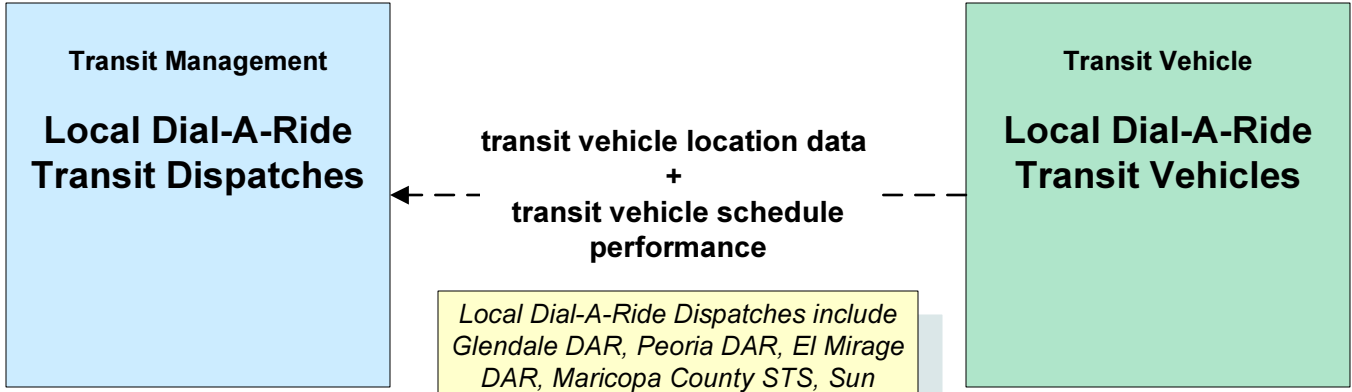
Local Dial-A-Ride Dispatches include Glendale DAR, Peoria DAR, El Mirage DAR, Maricopa County STS, Sun Cities DAR, Surprise DAR.

LEGEND
planned and future flow
- - - - - - - - - - - ▶

existing flow
————————▶

user defined flow
————————▶

APTS01 - Transit Vehicle Tracking
Phoenix Public Transit

Transit Management

Phoenix Public Transit OCC

Transit Vehicle

Phoenix Public Transit Vehicles

transit vehicle location
data
+
transit vehicle schedule
performance

LEGEND

planned and future flow

- - - - - - - - - - - - - ▶

existing flow

──────────▶

user defined flow

──────────▶

APTS02 - Transit Fixed-Route Operations
METRO Light Rail

Information Service Provider

Valley Metro Website

← transit and fare schedules —

Transit Management

METRO Light Rail OCC

— transit vehicle operator information →

Transit Vehicle

METRO Light Rail Vehicles

transit vehicle schedule performance
+
transit vehicle operator information to center_ud

Information Service Provider

AZTech RADS

— road network conditions →

← road network conditions —

Traffic Management

City of Mesa TMC
+
City of Phoenix TMC
+
City of Tempe TMC

← transit schedule adherence information —

← road network conditions —

Traffic Management

City of Glendale TMC
+
City of Peoria TMC

← road network conditions —

LEGEND

- - - ▶ planned and future flow

——▶ existing flow

——▶ user defined flow

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
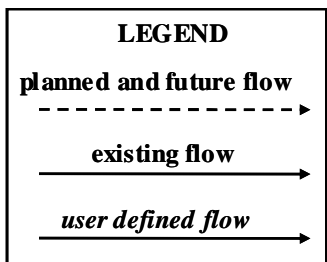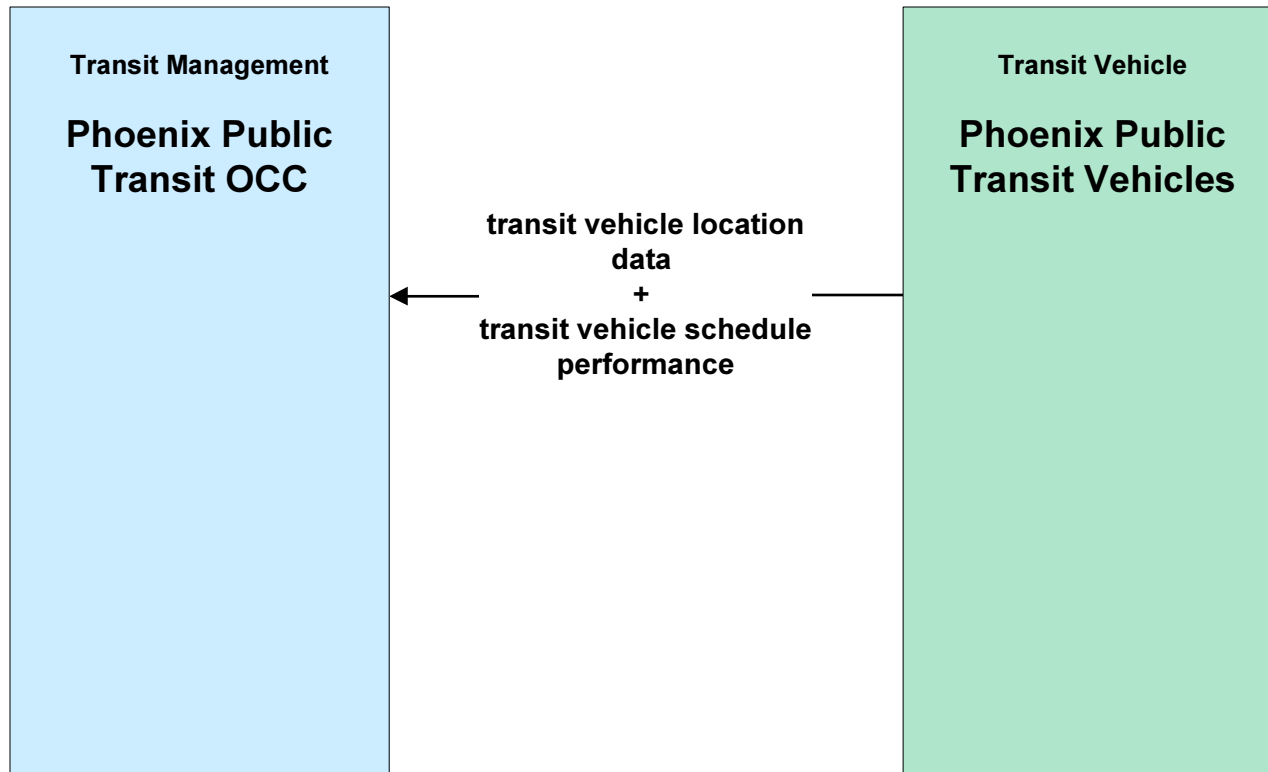
APTS02 - Transit Fixed-Route Operations
Local Transit Systems
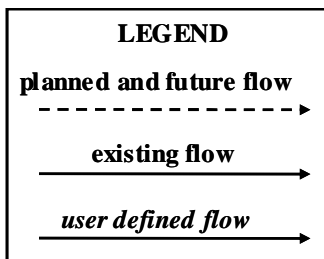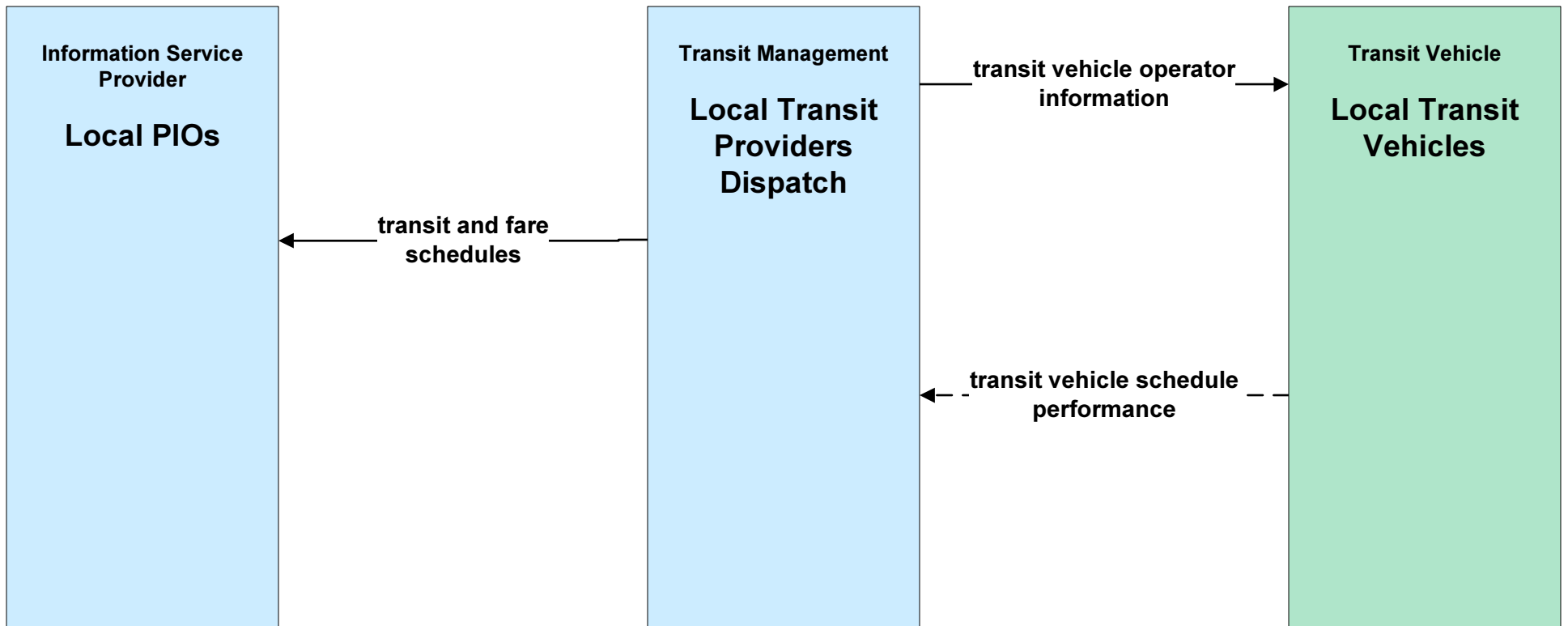
Information Service Provider

Local PIOs

Transit Management

Local Transit Providers Dispatch

Transit Vehicle

Local Transit Vehicles

transit vehicle operator information →

← transit and fare schedules

← transit vehicle schedule performance

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS02 - Transit Fixed-Route Operations
Phoenix Public Transit

Information Service Provider

Local PIOs

Transit Management

Phoenix Public Transit OCC

Transit Vehicle

Phoenix Public Transit Vehicles

transit vehicle operator information →

← transit and fare schedules

← transit vehicle schedule performance

LEGEND

planned and future flow - - - - →

existing flow →

user defined flow →
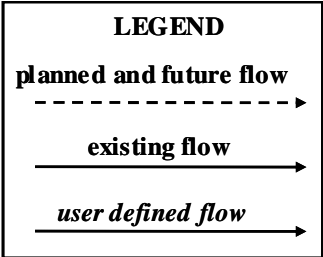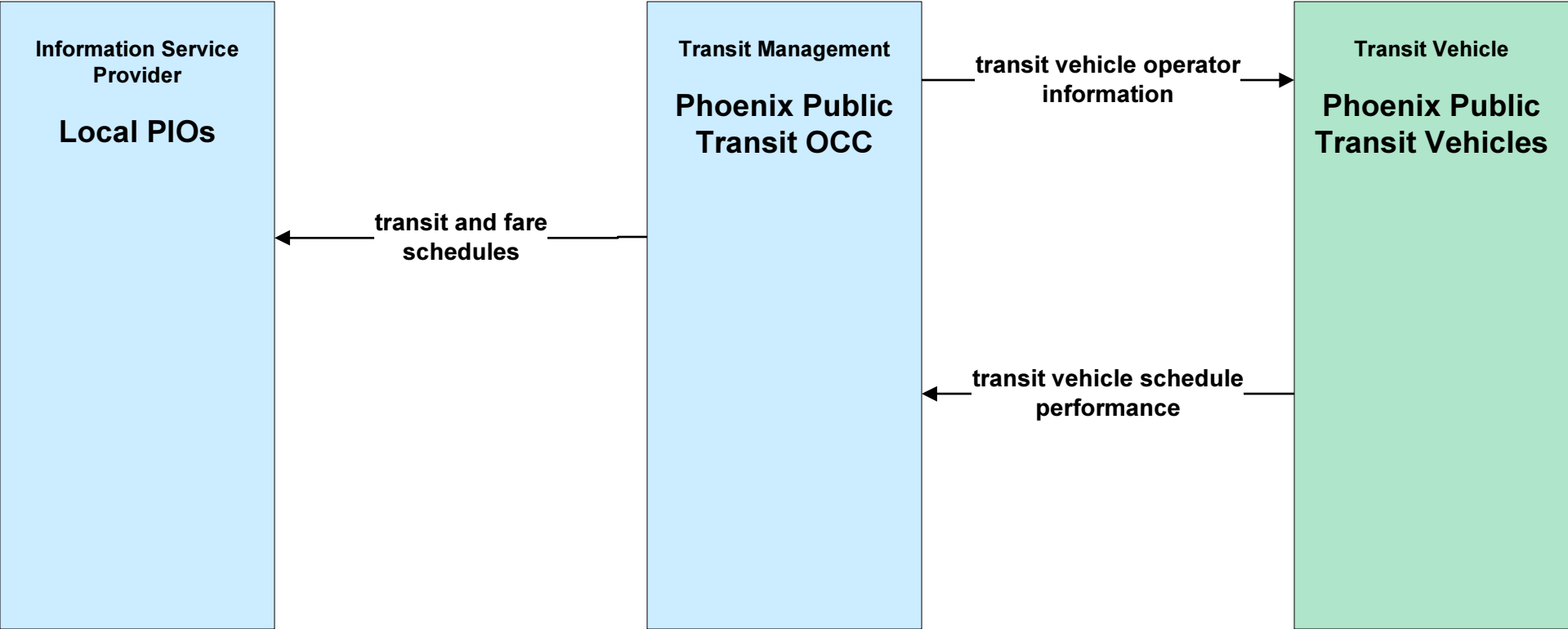
APTS03 - Demand Response Transit Operations
Local Dial-A-Ride Transit Systems (1 of 2)

Information Service Provider

MCDOT ATIS + Valley Metro Website

Transit Management

Local Dial-A-Ride Transit Dispatches

Information Service Provider

AZTech RADS

← demand responsive transit plan + transit and fare schedules

← road network conditions ←

transit schedule adherence information →

— road network conditions →

demand responsive transit request + selected routes + transit information request →

LEGEND

planned and future flow - - - - →

existing flow —→

user defined flow —→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Transit Management

Phoenix Dial-A-Ride Transit Dispatch

——transit vehicle operator information——→

←——demand response passenger and use data——

Transit Vehicle

Phoenix Dial-A-Ride Transit Vehicles

Transit Management

East Valley Dial-A-Ride Transit Dispatch

——transit vehicle operator information——→

←——demand response passenger and use data——

Transit Vehicle

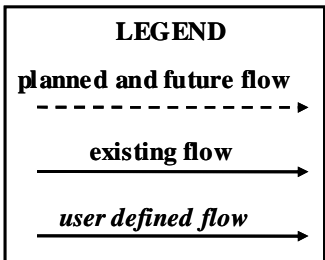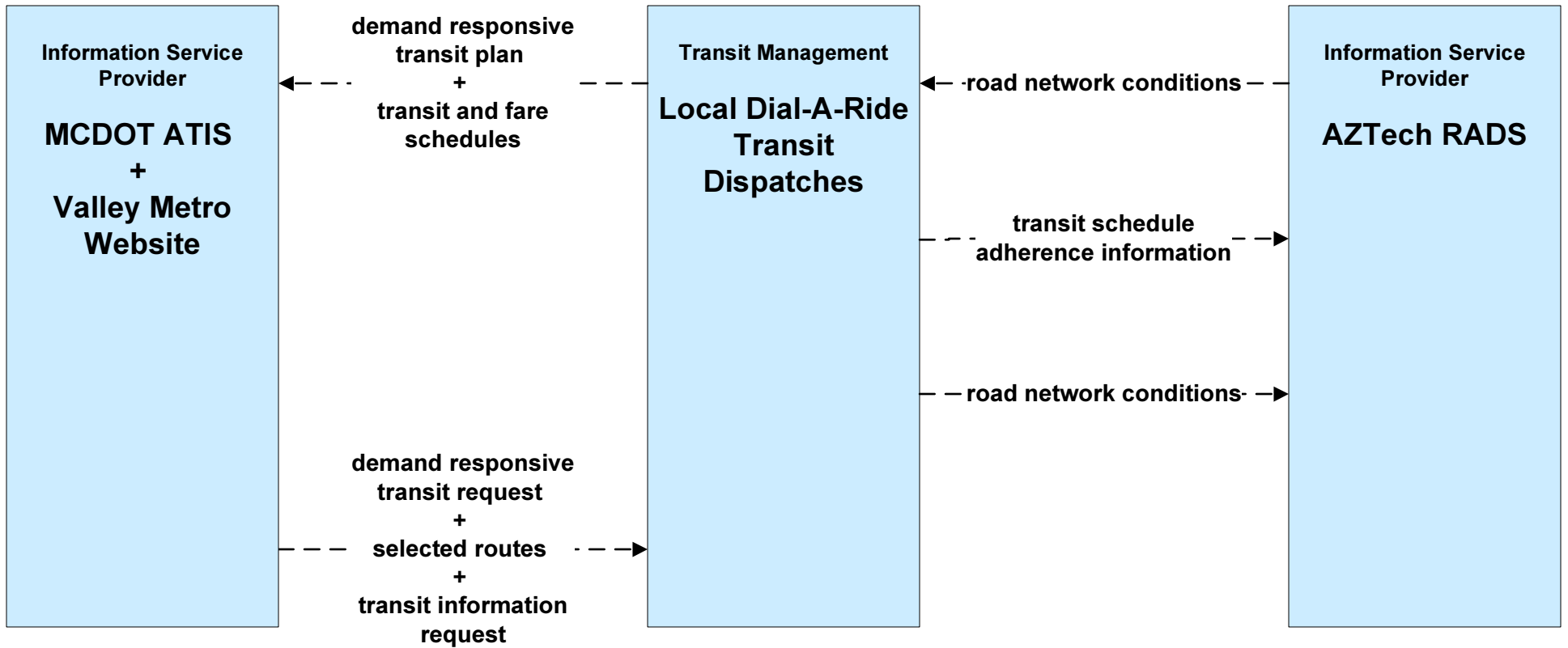**East Valley Dial-A-Ride Transit Vehicles**

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Transit Management

Local Dial-A-Ride Transit Dispatches

- - - transit vehicle operator information - - -→

←- - - demand response passenger and use data - - -

Transit Vehicle

Local Dial-A-Ride Transit Vehicles

LEGEND

planned and future flow
- - - - - - - →

existing flow
————————→

user defined flow
————————→

APTS04 - Transit Fare Collection Management
Phoenix Dial-A-Ride

Transit Vehicle

Phoenix Dial-A-Ride Transit Vehicles

request for payment →

← payment

Traveler Card

Phoenix Dial-A-Ride Pass

LEGEND

planned and future flow

- - - - - - - - →

existing flow

⎯⎯⎯⎯→

user defined flow

⎯⎯⎯⎯→

APTS04 - Transit Fare Collection Management
Phoenix Public Transit

Transit Management

Independent Fare Collection System Server

Transit Vehicle

Phoenix Public Transit Vehicles

Traveler Card

Valley Metro Pass

request for payment →

← fare collection data

← payment

LEGEND

planned and future flow
- - - - - - - - →

existing flow
————————→

user defined flow
————————→

APTS05 - Transit Security
Valley Metro

Emergency Management

Local Police Dispatch

Transit Management

Valley Metro OCC

Transit Vehicle

Valley Metro Transit Vehicles

← – transit emergency data – –

alarm acknowledge
+
remote vehicle disable
+
transit vehicle operator
authentication update →

incident response status – – →

alarm notification
+
← transit vehicle operator authentication information

Information Service Provider

Valley Metro Website

← – transit incident information – –

secure area surveillance control →

secure area surveillance data →

LEGEND

planned and future flow - - - - - →

existing flow ———→

user defined flow ———→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS05 - Transit Security
METRO Light Rail

Information Service Provider
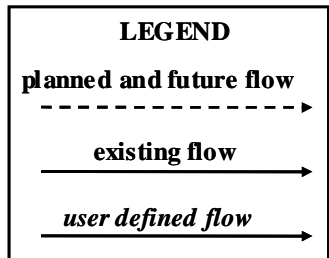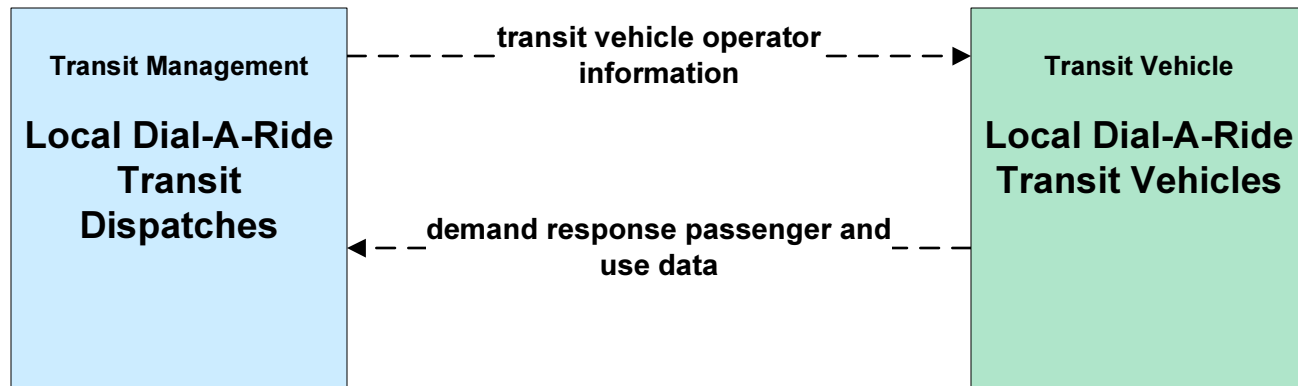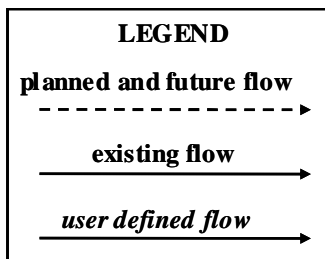
Valley Metro Customer Service

Transit Management

METRO Light Rail OCC

Transit Vehicle

METRO Light Rail Vehicles

← transit incident information

← alarm notification

alarm acknowledge →

Emergency Management

Local Police Dispatch

← transit emergency data

secure area surveillance control →

incident response status →

← secure area surveillance data

alarm acknowledge
+
secure area surveillance control →

Remote Traveler Support

METRO Light Rail Center Stations/Park and Rides

alarm notification
+
secure area surveillance data

LEGEND

planned and future flow - - - - - - ►

existing flow ——————►

user defined flow ——————►

APTS05 - Transit Security
Local Dial-A-Ride and Local Transit Systems

Emergency Management

Local Police Dispatch

Transit Management

Local Dial-A-Ride Transit Dispatches

Transit Vehicle

Local Dial-A-Ride Transit Vehicles

←— transit emergency data —

— alarm acknowledge →

←—— incident response status ——→

←—— alarm notification ——

Transit Management

Local Transit Providers Dispatch

Transit Vehicle

Local Transit Vehicles

←— transit emergency data —

— alarm acknowledge →

←—— incident response status ——→

←—— alarm notification ——

LEGEND

planned and future flow ----------→

existing flow ————→

user defined flow ————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
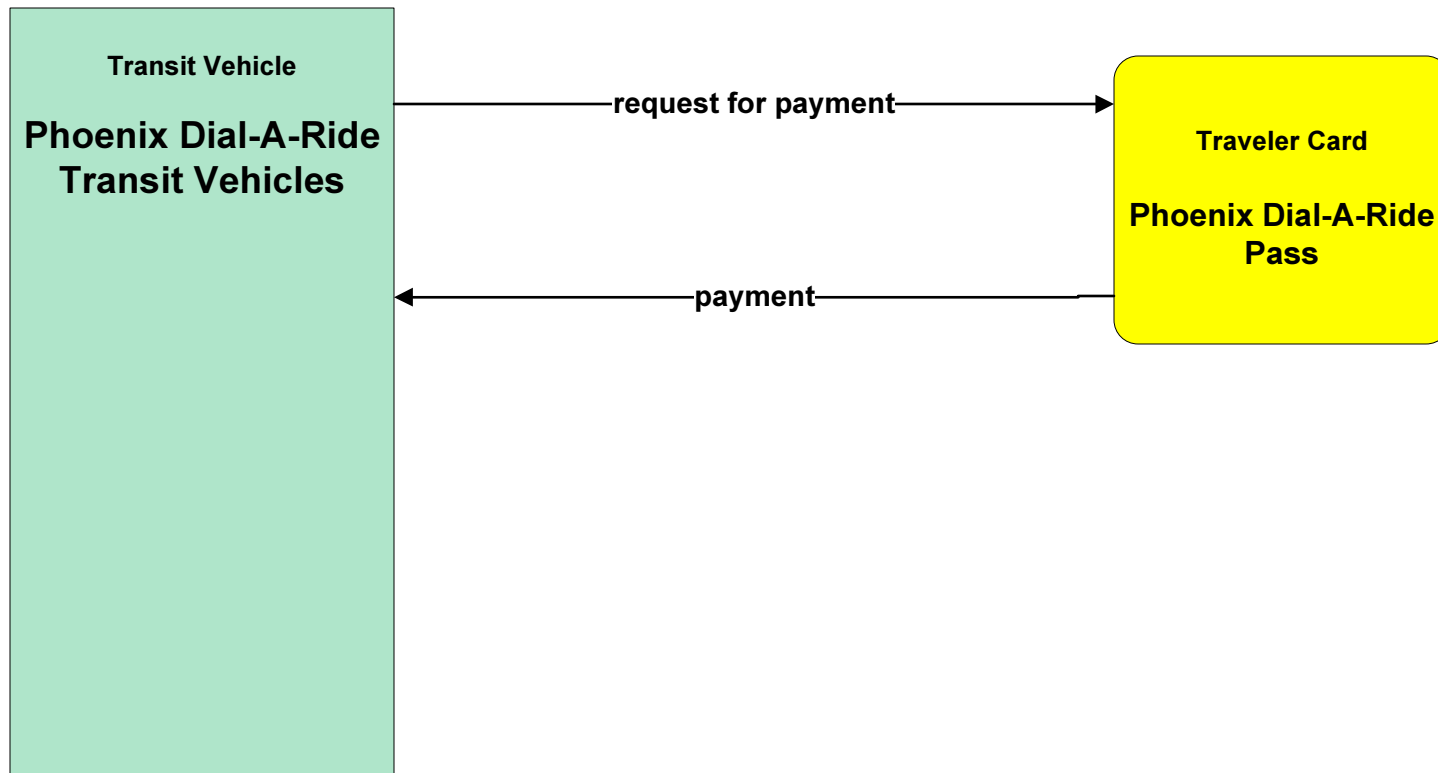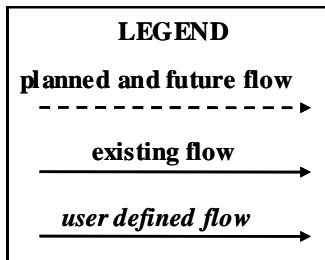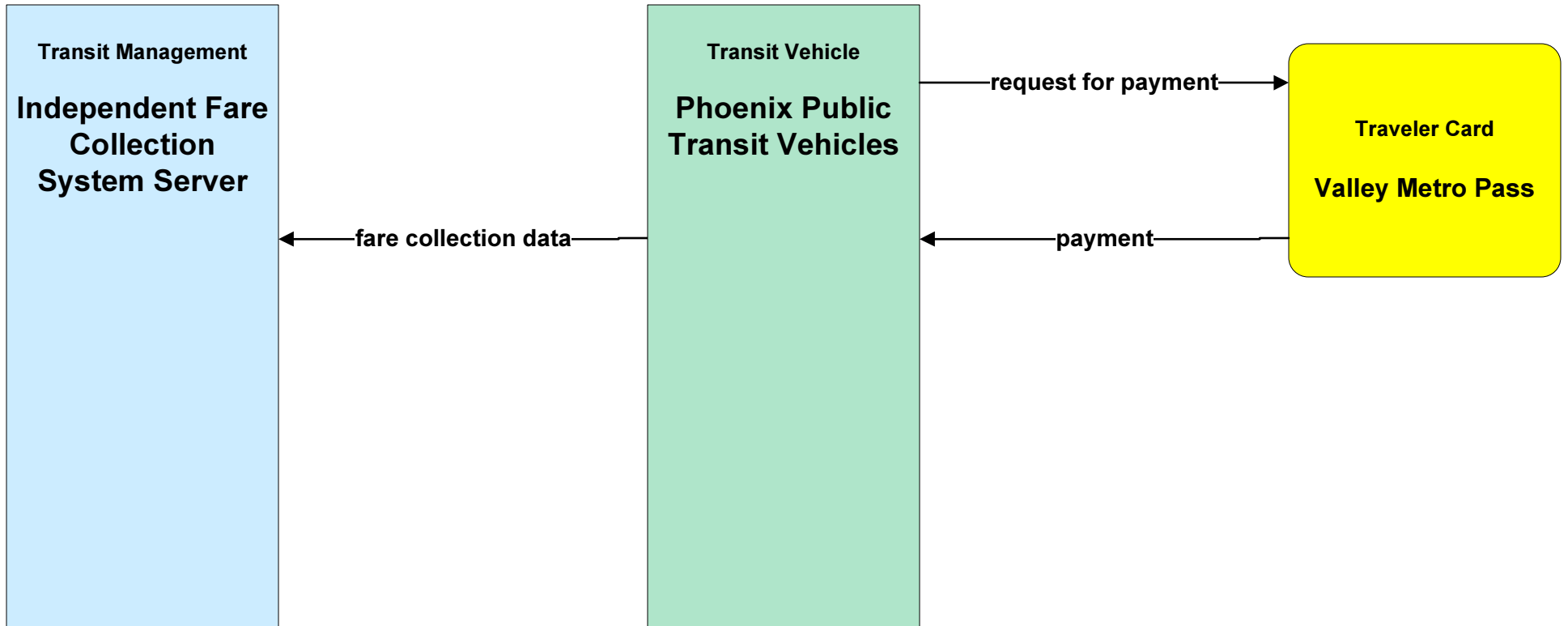
APTS05 - Transit Security
Phoenix Dial-A-Ride and East Valley Dial-A-Ride

Emergency Management

Phoenix Police Dispatch

Transit Management

Phoenix Dial-A-Ride Transit Dispatch

Transit Vehicle

Phoenix Dial-A-Ride Transit Vehicles

←–transit emergency data––

–alarm acknowledge→

– – incident response status – – →

←––alarm notification––

Emergency Management

Local Police Dispatch

Transit Management

East Valley Dial-A-Ride Transit Dispatch

Transit Vehicle

East Valley Dial-A-Ride Transit Vehicles

←–transit emergency data––

–alarm acknowledge→

– – incident response status – – →

←––alarm notification––

LEGEND

planned and future flow – – – – – – →

existing flow ────→

user defined flow ────→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
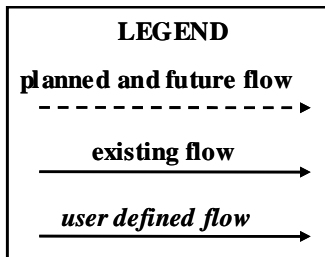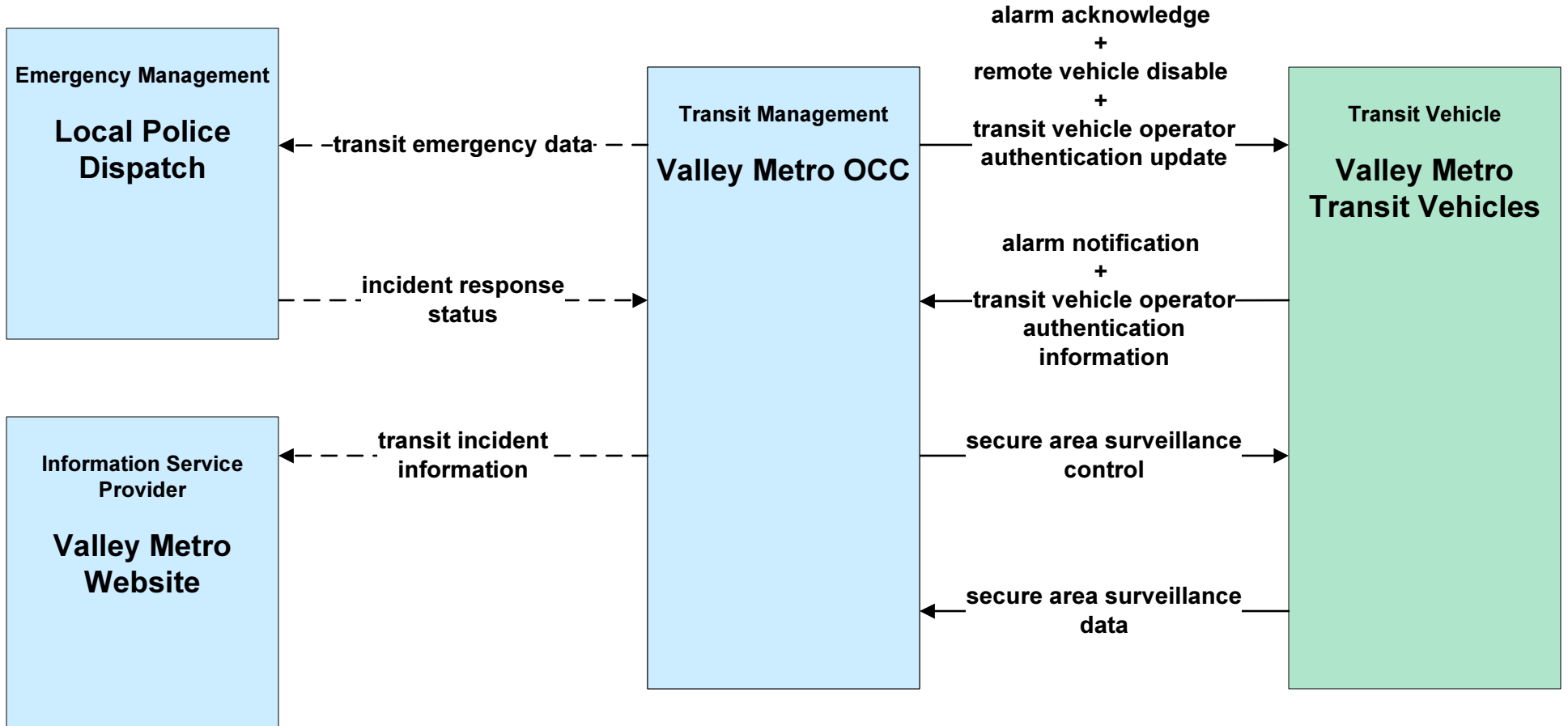
APTS05 - Transit Security
Phoenix Public Transit

Emergency Management

Phoenix Police Dispatch

Transit Management

Phoenix Public Transit OCC

Transit Vehicle

Phoenix Public Transit Vehicles

←— transit emergency data —

incident response status → (planned)

alarm notification
+
transit vehicle operator authentication information ←

secure area surveillance data ← (planned)

Information Service Provider

Valley Metro Website

← transit incident information (planned)

alarm acknowledge
+
remote vehicle disable
+
transit vehicle operator authentication update →

secure area surveillance control → (planned)

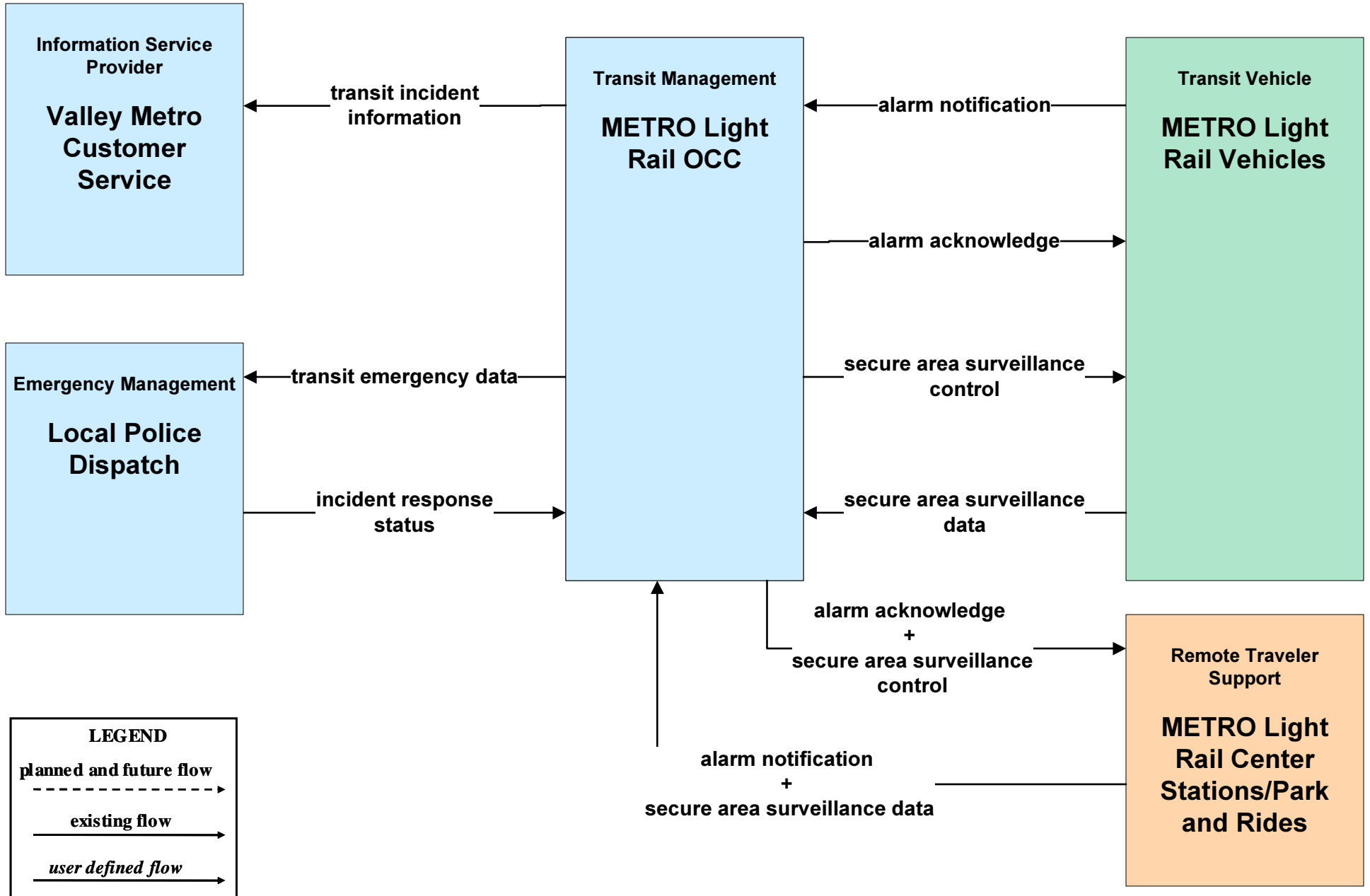## LEGEND

planned and future flow - - - - - →
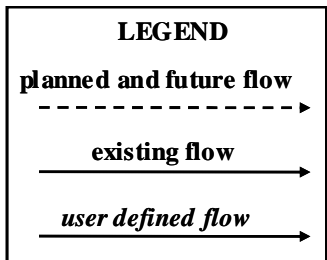
existing flow —————→

user defined flow —————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS06 - Transit Fleet Management
Local Dial-A-Ride Transit Systems

Transit Management

Phoenix Dial-A-Ride Transit Dispatch

——request for vehicle measures——▶

◀——transit vehicle conditions——

Transit Vehicle

Phoenix Dial-A-Ride Transit Vehicles

Transit Management

East Valley Dial-A-Ride Transit Dispatch

– – –request for vehicle measures– – –▶

◀– – –transit vehicle conditions – – –

Transit Vehicle

East Valley Dial-A-Ride Transit Vehicles

Transit Management

Local Dial-A-Ride Transit Dispatches

– – –request for vehicle measures– – –▶

◀– – –transit vehicle conditions – – –

Transit Vehicle

Local Dial-A-Ride Transit Vehicles

LEGEND

planned and future flow
– – – – – – – – –▶

existing flow
—————————▶
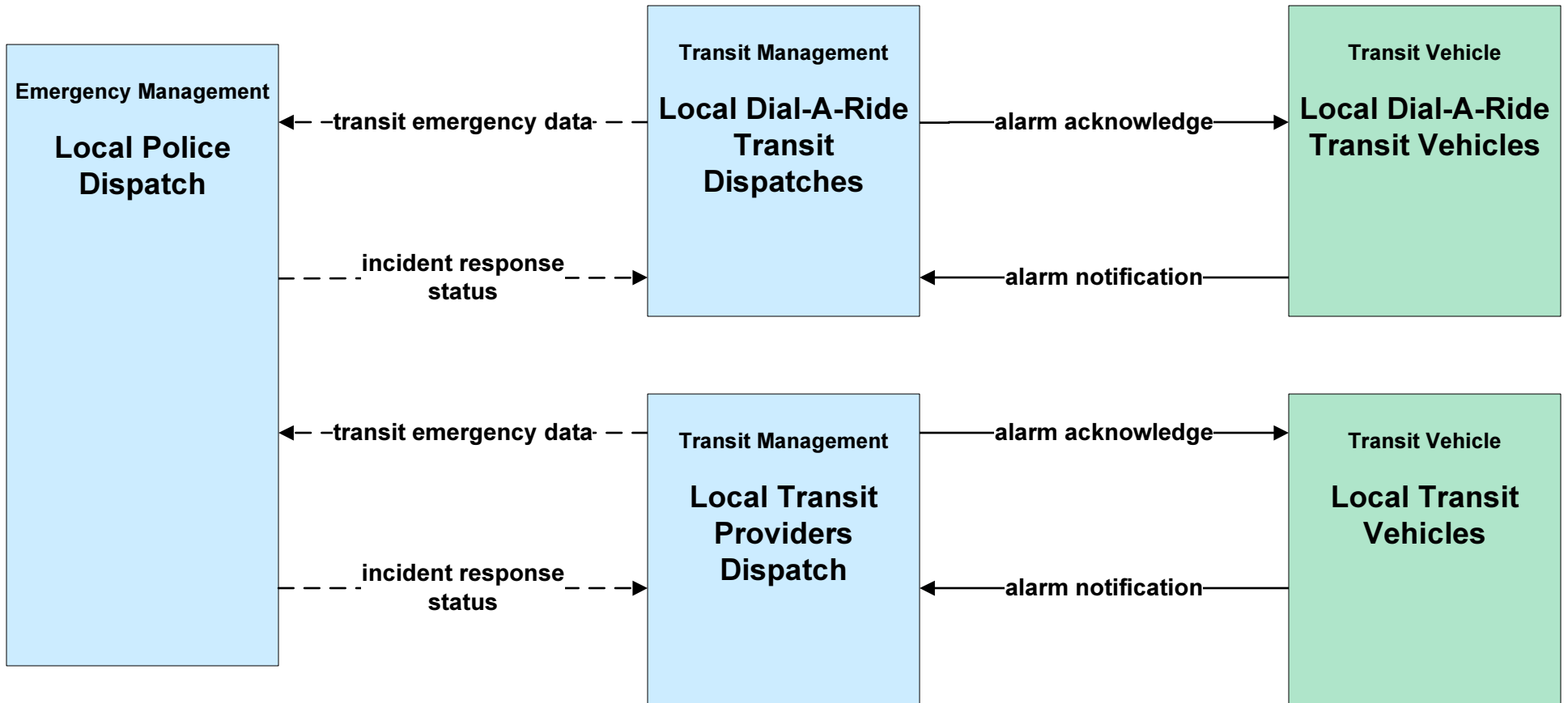
user defined flow
—————————▶

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
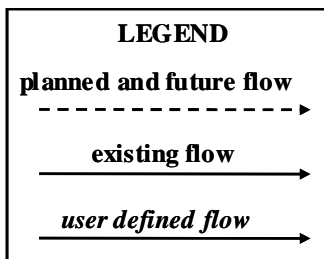
APTS06 - Transit Fleet Management
Phoenix Public Transit

Transit Management

Phoenix Public Transit OCC

Transit Vehicle

Phoenix Public Transit Vehicles

request for vehicle measures →

← transit vehicle conditions

LEGEND

planned and future flow
- - - - - - - - →

existing flow
———————→

user defined flow
———————→

APTS07 - Multi-modal Coordination
Valley Metro

Transit Management

East Valley Dial-A-Ride Transit Dispatch
+
METRO Light Rail OCC
+
Phoenix Dial-A-Ride Transit Dispatch
+
Phoenix Public Transit OCC

Transit Management

Valley Metro OCC

Transit Vehicle

Valley Metro Transit Vehicles

transit service coordination →

← transit service coordination

← transit vehicle schedule performance

Transit Management

Local Transit Providers Dispatch

← transit service coordination

– – transit service coordination

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
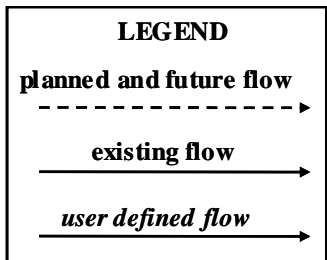
LEGEND

planned and future flow – – – – – →

existing flow ——→

user defined flow ——→

APTS07 - Multi-modal Coordination
METRO Light Rail

Transit Management

East Valley Dial-A-Ride Transit Dispatch
+
Local Dial-A-Ride Transit Dispatches
+
Local Transit Providers Dispatch
+
Phoenix Dial-A-Ride Transit Dispatch
+
Phoenix Public Transit OCC

Transit Management

METRO Light Rail OCC

Transit Vehicle

METRO Light Rail Vehicles

Transit Management

Valley Metro OCC

transit service coordination →

← transit vehicle schedule performance

← transit service coordination

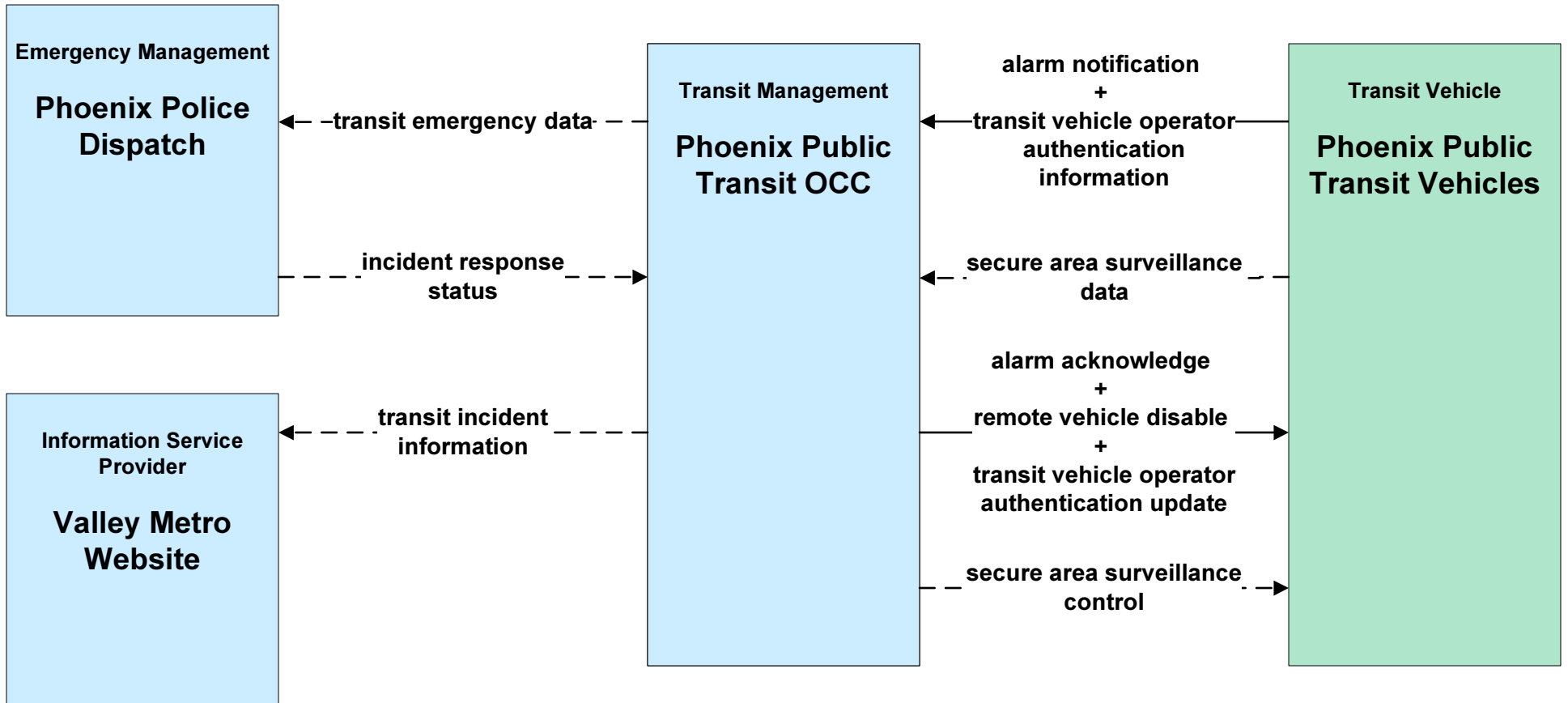← transit service coordination

transit service coordination →

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS07 - Multi-modal Coordination
Local Dial-A-Ride Transit Systems

Transit Management

Phoenix Dial-A-Ride Transit Dispatch

Transit Vehicle

Phoenix Dial-A-Ride Transit Vehicles

transit service coordination– – – →

← – – transit vehicle schedule performance

Transit Management

**Local Transit Providers Dispatch
+
Other Local Dial-A-Ride Transit Dispatches**
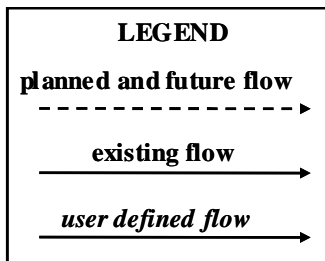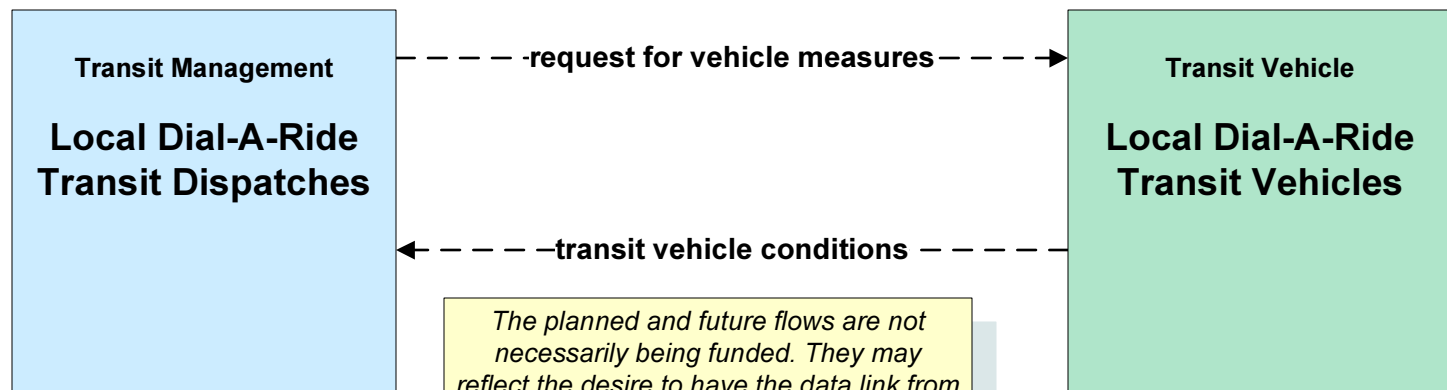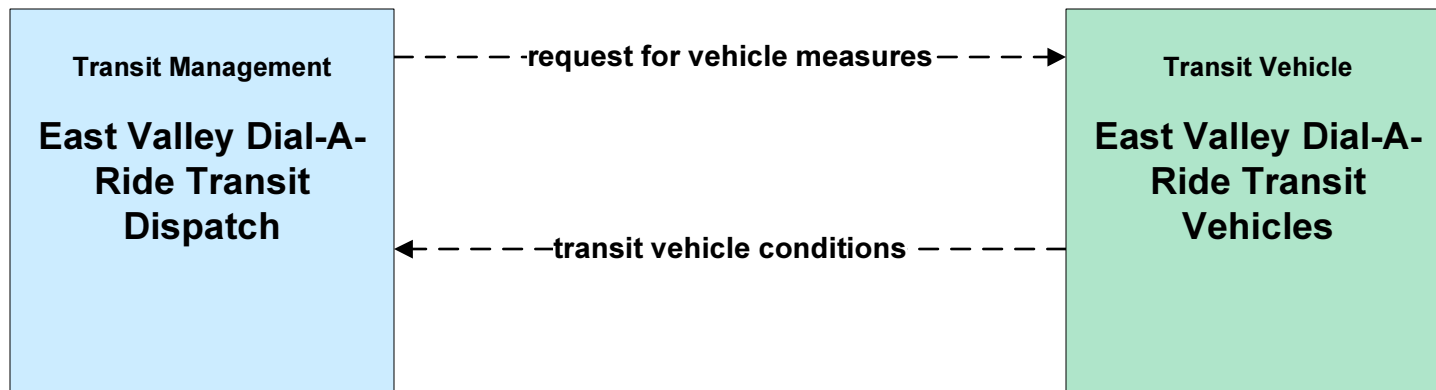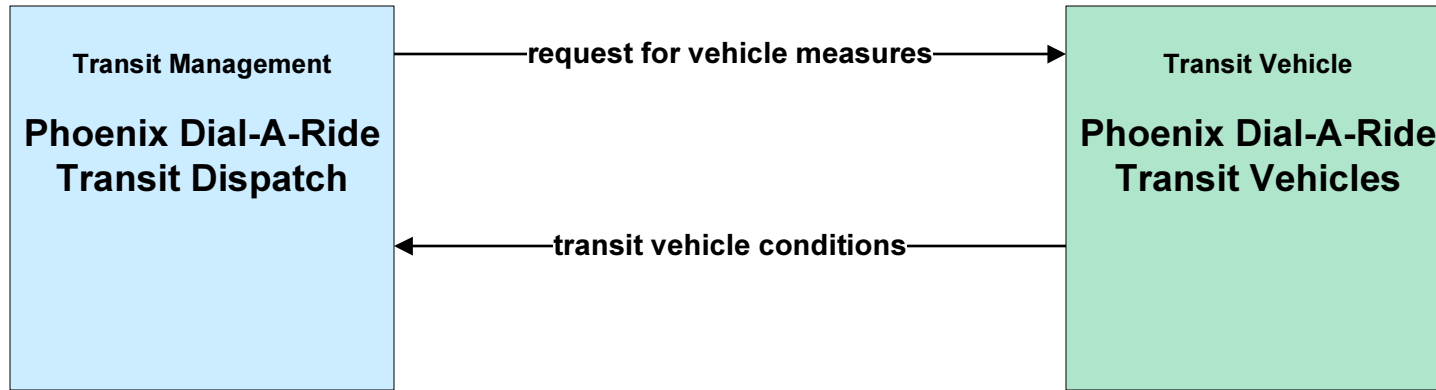
← – – transit service coordination

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

transit service coordination – – →

Transit Management

East Valley Dial-A-Ride Transit Dispatch

← – – transit vehicle schedule performance

Transit Vehicle

East Valley Dial-A-Ride Transit Vehicles

← – – transit service coordination

LEGEND

planned and future flow – – – →

existing flow ⎯⎯→

user defined flow ⎯⎯→

– – – transit service coordination

Transit Management

Local Dial-A-Ride Transit Dispatches

← – transit vehicle schedule performance – –

Transit Vehicle

Local Dial-A-Ride Transit Vehicles

transit service coordination– – – →

APTS08 - Transit Traveler Information
Phoenix Public Transit
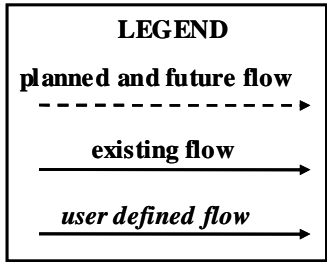
Transit Management

Phoenix Public Transit OCC

Transit Vehicle

Phoenix Public Transit Vehicles

transit traveler information

Information Service Provider

Valley Metro Website

transit and fare schedules

Remote Traveler Support

Phoenix Public Transit Bus Stops

transit traveler information

transit information request

traveler profile
+
traveler request
+
trip request

Personal Information Access

Personal Information Devices

interactive traveler information
+
trip plan

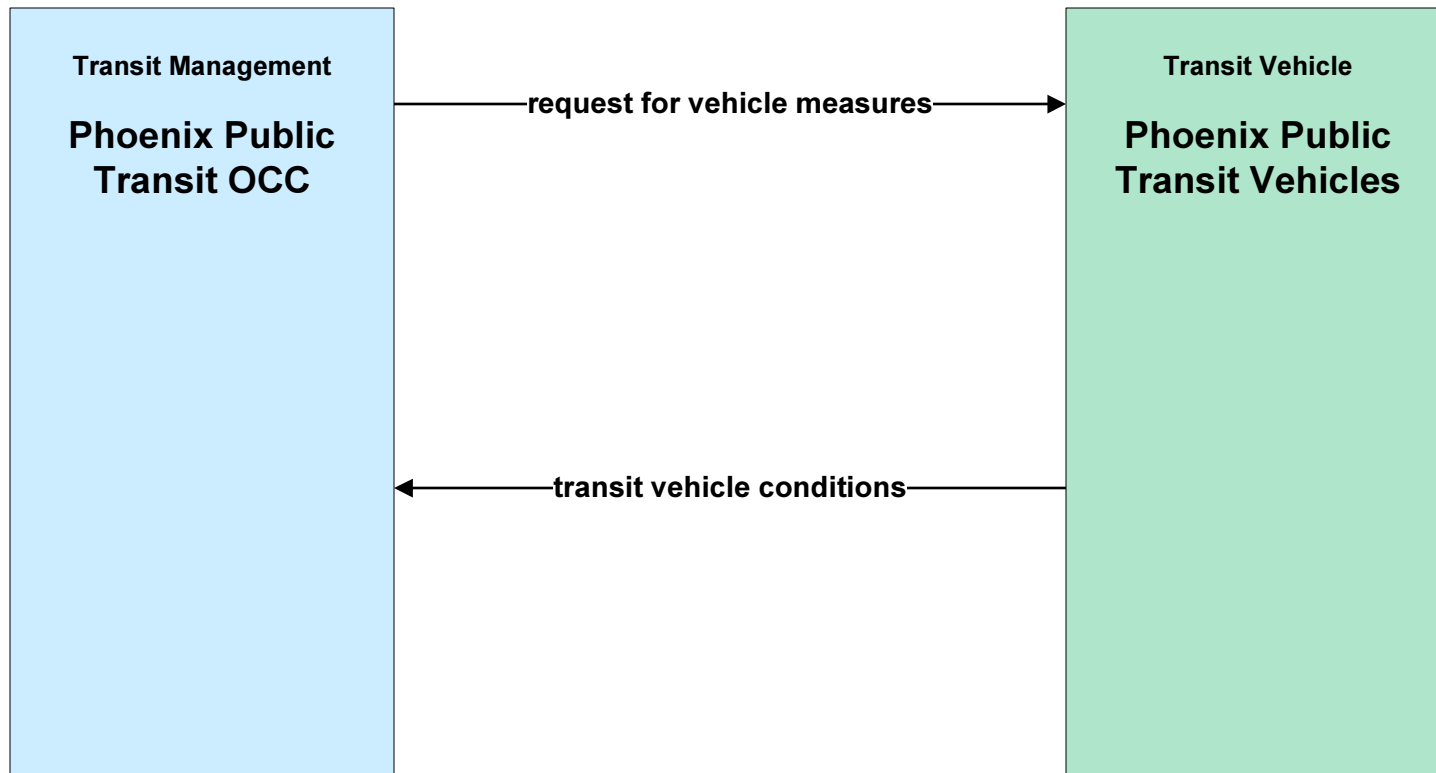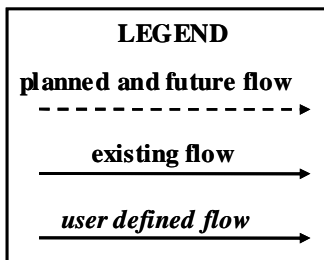broadcast traveler information

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS09 – Transit Signal Priority
Valley Metro – City of Phoenix

Some cities have infrastructure in place which is not yet being utilized by Valley Metro or local transit services.
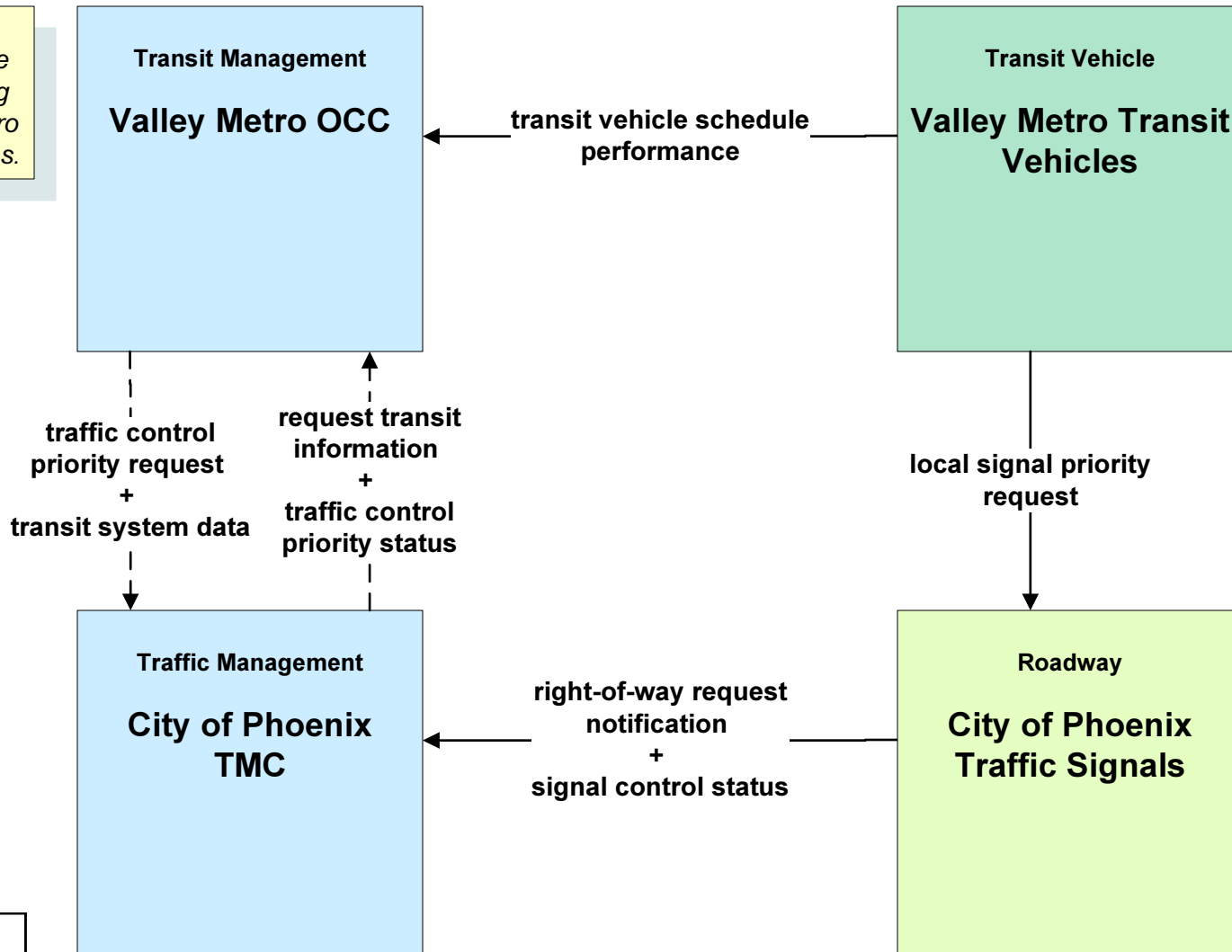
Transit Management

Valley Metro OCC

Transit Vehicle

Valley Metro Transit Vehicles

← transit vehicle schedule performance

traffic control priority request + transit system data

request transit information + traffic control priority status

local signal priority request

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix Traffic Signals

← **right-of-way request notification + signal control status**

LEGEND

planned and future flow

- - - - - - - →

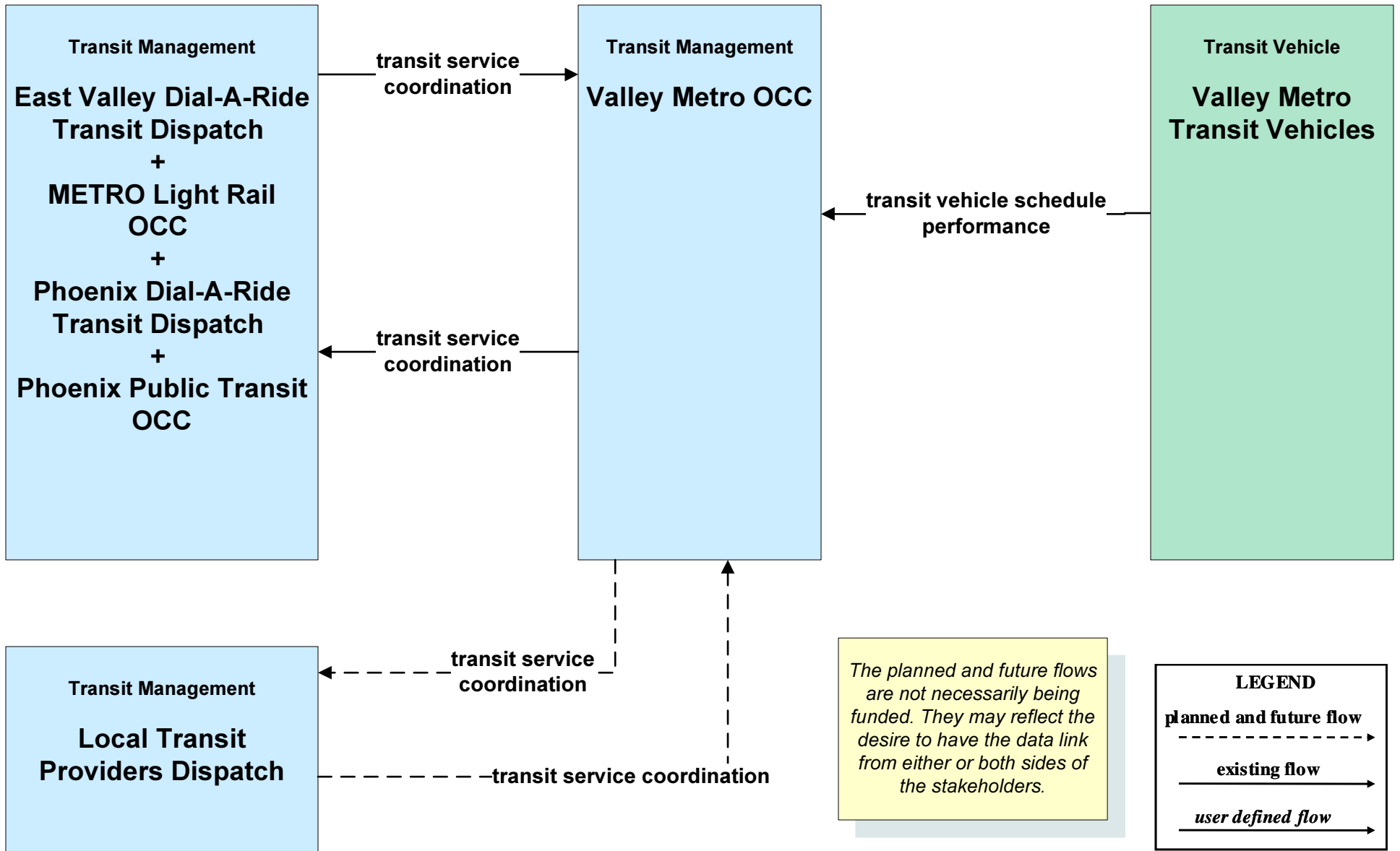existing flow

——————→

user defined flow

——————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

APTS09 – Transit Signal Priority
METRO Light Rail – City of Mesa and City of Phoenix

Traffic Management
City of Mesa TMC

Roadway
City of Mesa Traffic Signals

right-of-way request notification
+
signal control status

traffic control priority request
+
transit system data

request transit information
+
traffic control priority status

local signal priority request

Transit Management
METRO Light Rail OCC

transit vehicle schedule performance

Transit Vehicle
METRO Light Rail Vehicles

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
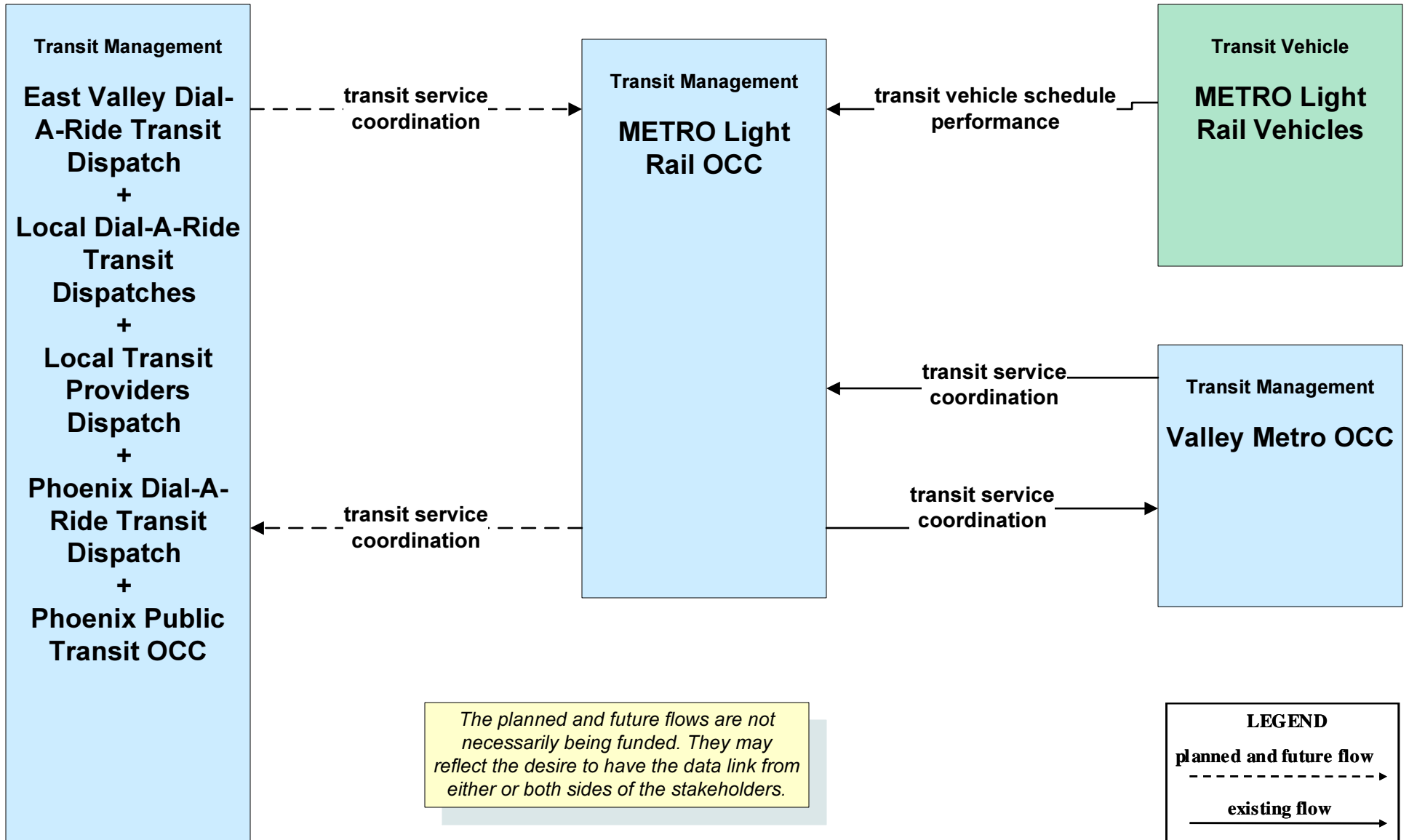
traffic control priority request
+
transit system data

request transit information
+
traffic control priority status

local signal priority request

Traffic Management
City of Phoenix TMC

right-of-way request notification
+
signal control status

Roadway
City of Phoenix Traffic Signals

LEGEND
planned and future flow

existing flow

user defined flow

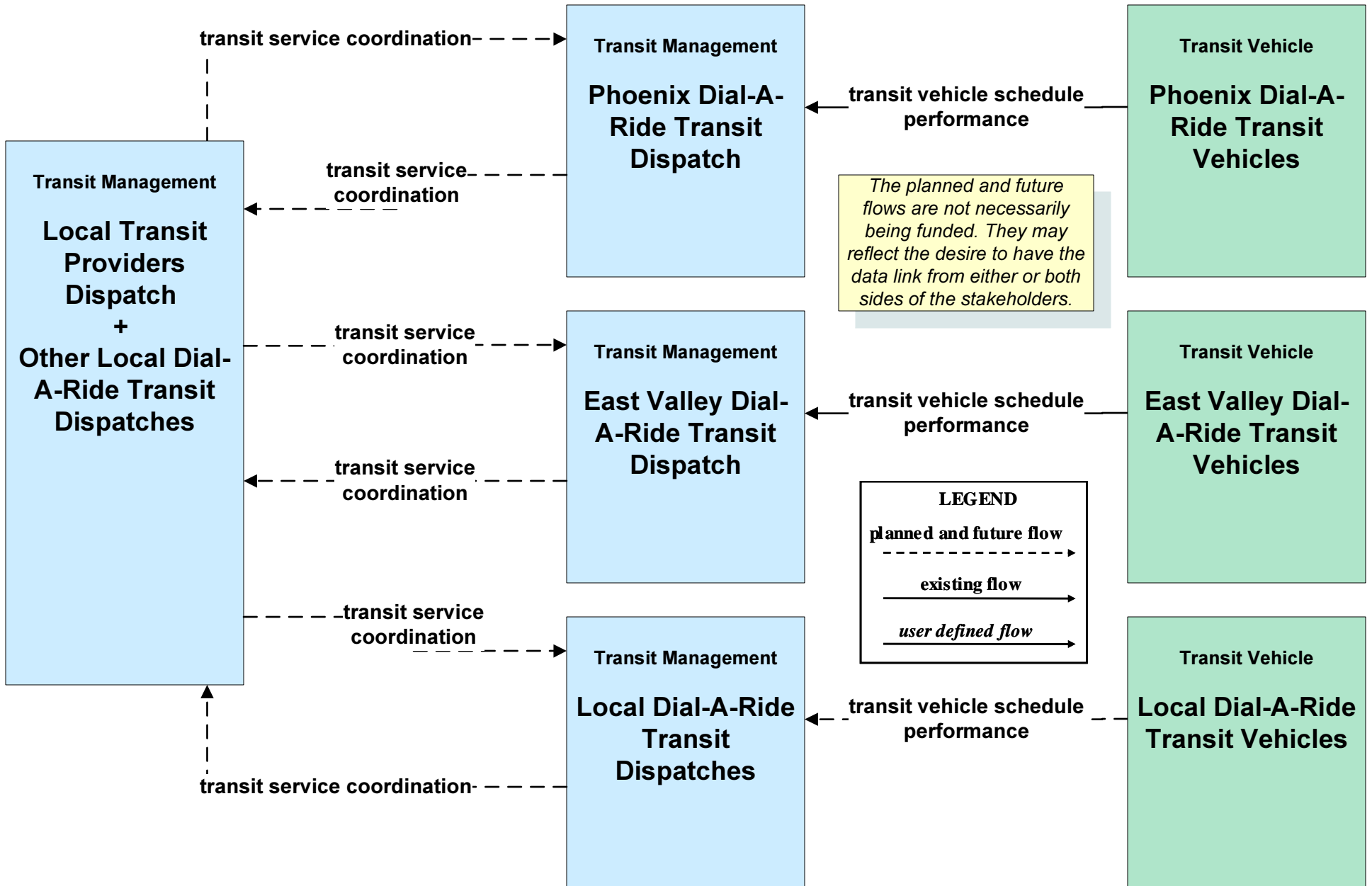# APTS10 – Transit Passenger Counting
Area Transit Providers

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
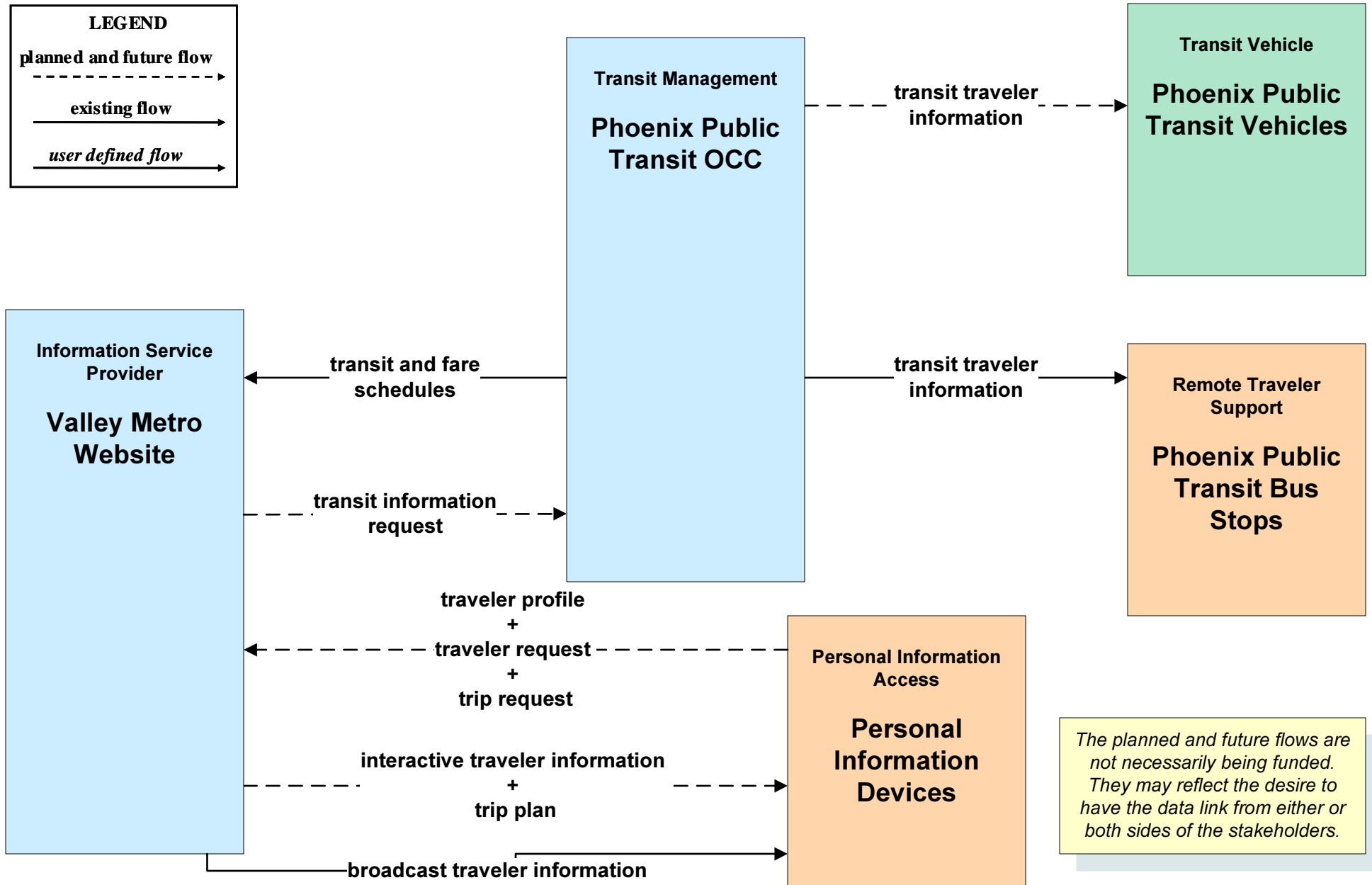
Transit Management
Valley Metro OCC

← transit vehicle loading data ← **Transit Vehicle** **Valley Metro Transit Vehicles**

Transit Management
METRO Light Rail OMC

← transit vehicle loading data ← **Transit Vehicle** **METRO Light Rail Vehicles**

Transit Management
Phoenix Public Transit OCC

← transit vehicle loading data ← **Transit Vehicle** **Phoenix Public Transit Vehicles**

Transit Management
Local Transit Providers Dispatch

← – transit vehicle loading data – – **Transit Vehicle** **Local Transit Vehicles**

LEGEND
planned and future flow ------→
existing flow ——→
user defined flow ——→

APTS11 – Multimodal Connection Protection
Phoenix Sky Harbor SkyTrain

Transit Management

Valley Metro OCC

transit service coordination →

Transit Management

Phoenix Public Transit OCC

transit traveler information
+
transit vehicle operator information →

Transit Vehicle

Phoenix Sky Harbor SkyTrain

← transit service coordination

← transit traveler request
+
transit user information

LEGEND

planned and future flow - - - - - →

existing flow →

user defined flow →

APTS11 – Multimodal Connection Protection
Area Transit Providers

Transit Vehicle

**Local Transit Vehicles
+
METRO Light Rail Vehicles
+
Phoenix Public Transit Vehicles
+
Valley Metro Transit Vehicles**

transit traveler request
+
transit user information →

Transit Management

Valley Metro OCC

transit trip plan →

Information Service Provider

Valley Metro Website

← transit traveler information
+
transit vehicle operator information

← selected routes
+
transit trip request

transit service coordination →

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Other Transit Management

**Local Transit Providers Dispatch
+
METRO Light Rail OCC
+
Phoenix Public Transit OCC**

transit service coordination

LEGEND

planned and future flow - - - →

existing flow ⟶

user defined flow ⟶

ATIS01 - Broadcast Traveler Information
ADOT HCRS (Inputs)

Information Service Provider

AZTech RADS

→ road network conditions →

Information Service Provider

ADOT HCRS

Maintenance and Construction Management
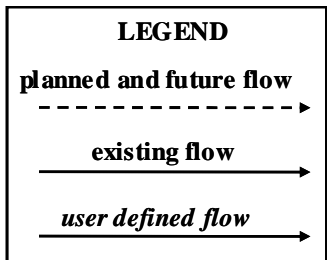
ADOT Maintenance Group

current asset restrictions
+
maint and constr work plans
+
roadway maintenance status
+
work zone information

→

Emergency Management

Phoenix Fire Department Regional Dispatch Center

→ incident information →

qualified environmental conditions data
+
weather information

Weather Service

National Weather Service

Traffic Management

ADOT TOC

road network conditions

LEGEND

planned and future flow
- - - - - - →

existing flow
———————→

user defined flow
———————→

Traffic Management

City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Town of Gilbert TMC

road network conditions →

Information Service Provider

Local PIOs

road network conditions →

Traffic Management

City of Avondale TMC
+
City of Mesa TMC

Created two diagrams from old ATIS01-5 (Now ATIS01-5 and ATIS01-7)

TMCs are represented in different boxes due to the direction of their information sharing with their local PIOs rather than rather than a transfer of information from one TMC through their PIOs to another TMC.
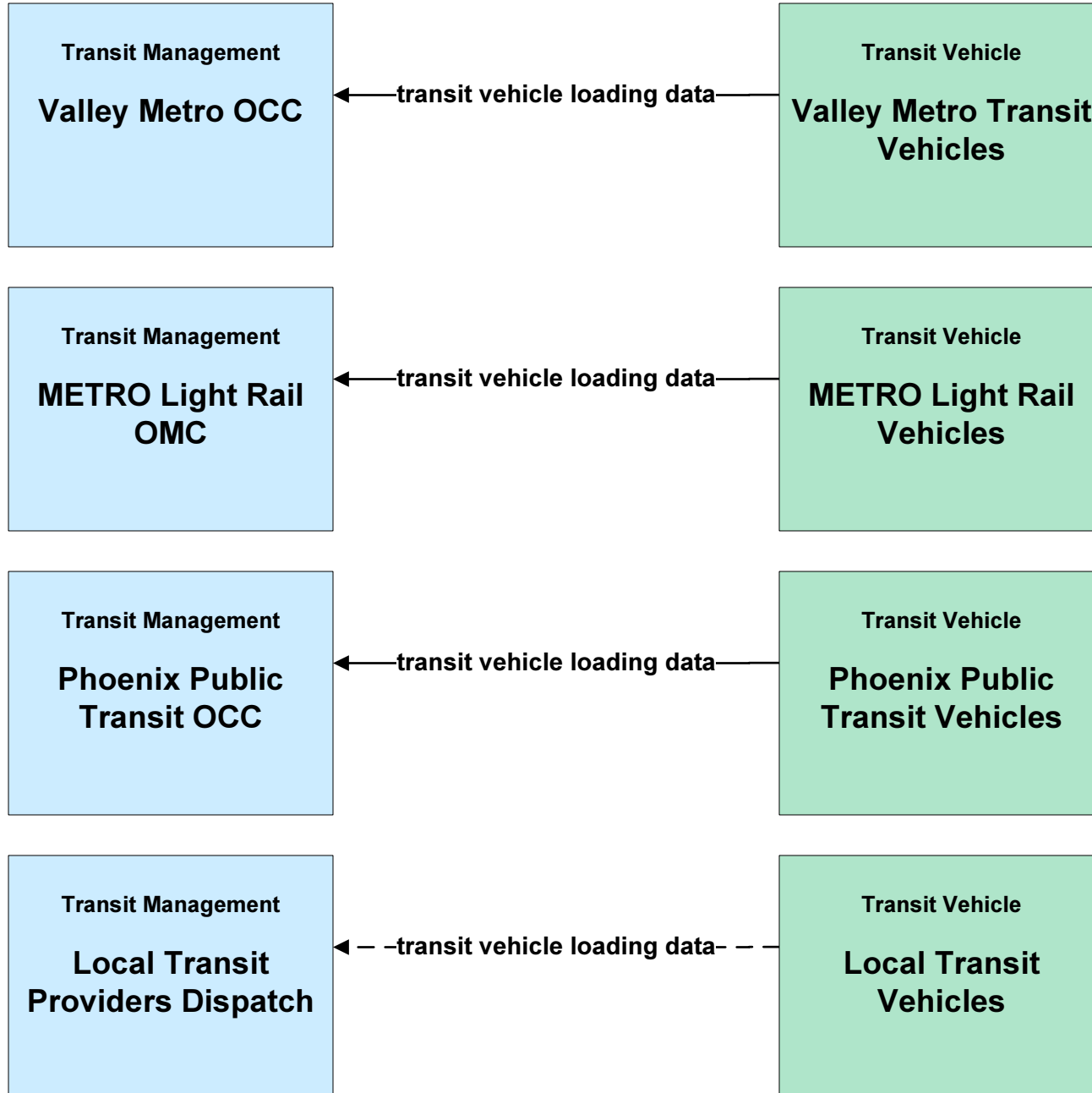
The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND

planned and future flow - - - - →

existing flow ——→

user defined flow ——→

current asset
restrictions
+
maint and constr work
plans
+
roadway maintenance
status
+
work zone information

**Maintenance and
Construction
Management**

**Local Public
Works Divisions**

**Information Service
Provider**

Local PIOs

**Personal Information
Access**

**Personal
Information
Devices**

broadcast traveler
information

traveler information for
media

external reports

Media

**TV and Radio
Stations**

*Many local PIOs are utilizing social media
services to relay traveler information to
the public. This availability of information
from local agencies is being updated
regularly and therefore is being shown as
an existing information flow to assume all
agencies will eventually provide this
information to travelers through their own
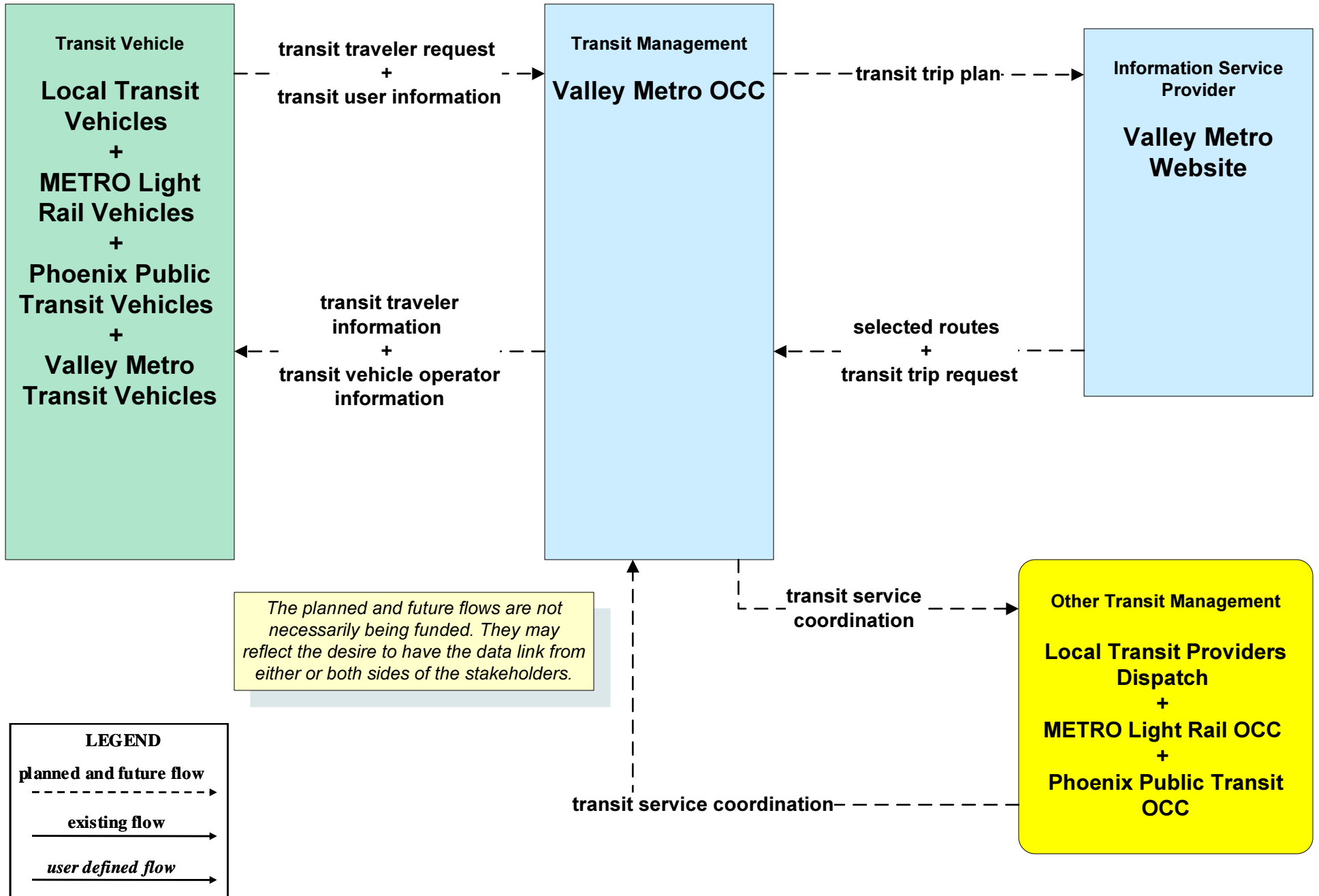services or via other services.*

*The planned and future flows are not
necessarily being funded. They may
reflect the desire to have the data link
from either or both sides of the
stakeholders.*

LEGEND
planned and future flow
- - - - - - - - - - - - ▶

existing flow
──────────▶

user defined flow
──────────▶
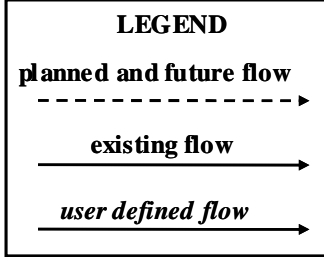
ATMS01 - Network Surveillance
City of Phoenix
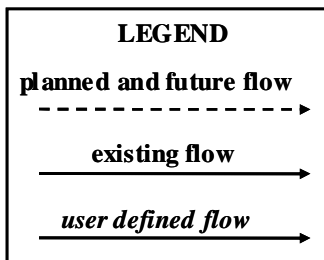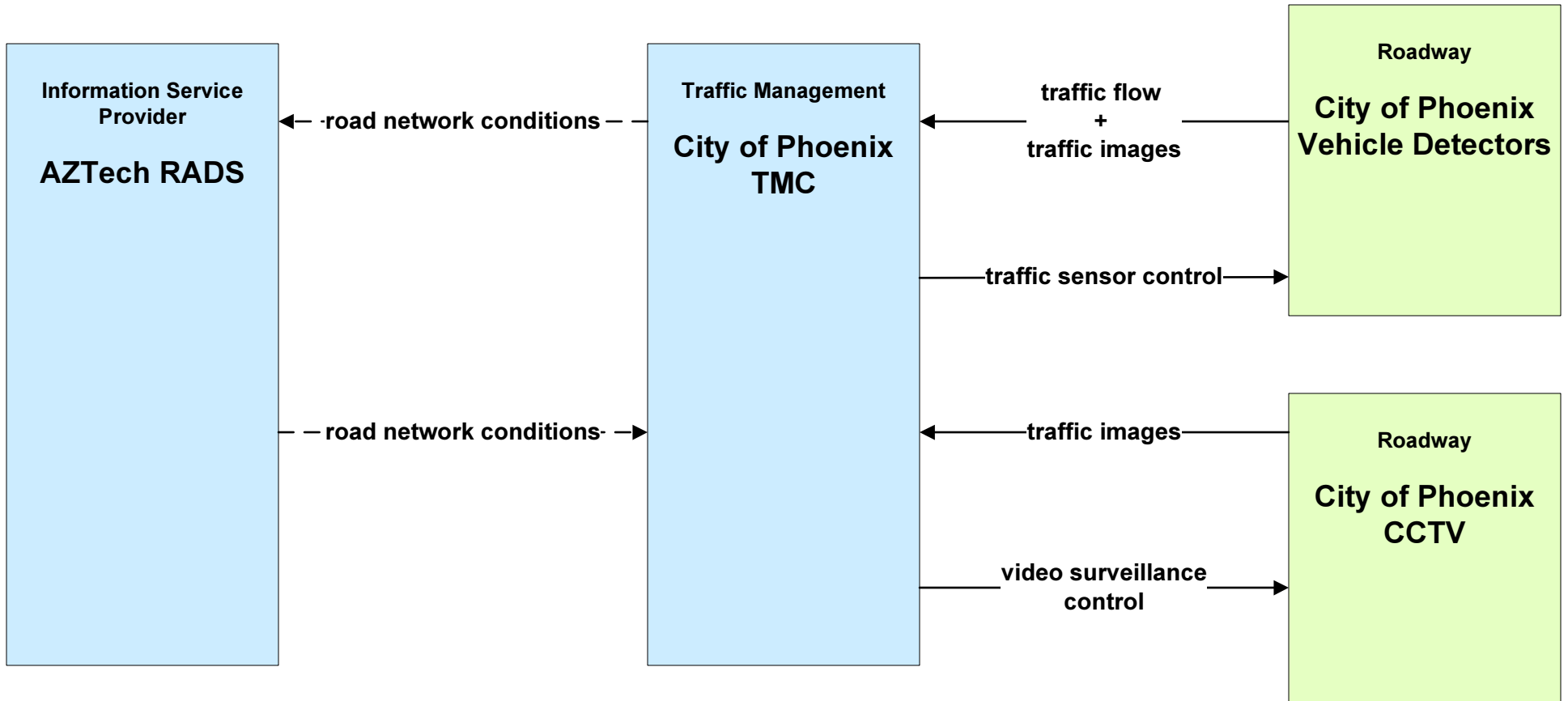
Information Service Provider

AZTech RADS

←— road network conditions —

Traffic Management

City of Phoenix TMC

— road network conditions· →

Roadway

City of Phoenix Vehicle Detectors

traffic flow
+
traffic images →

←— traffic sensor control —→

Roadway

City of Phoenix CCTV

←— traffic images —

— video surveillance control —→

LEGEND

planned and future flow
- - - - - - - - - →

existing flow
————————→

user defined flow
————————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
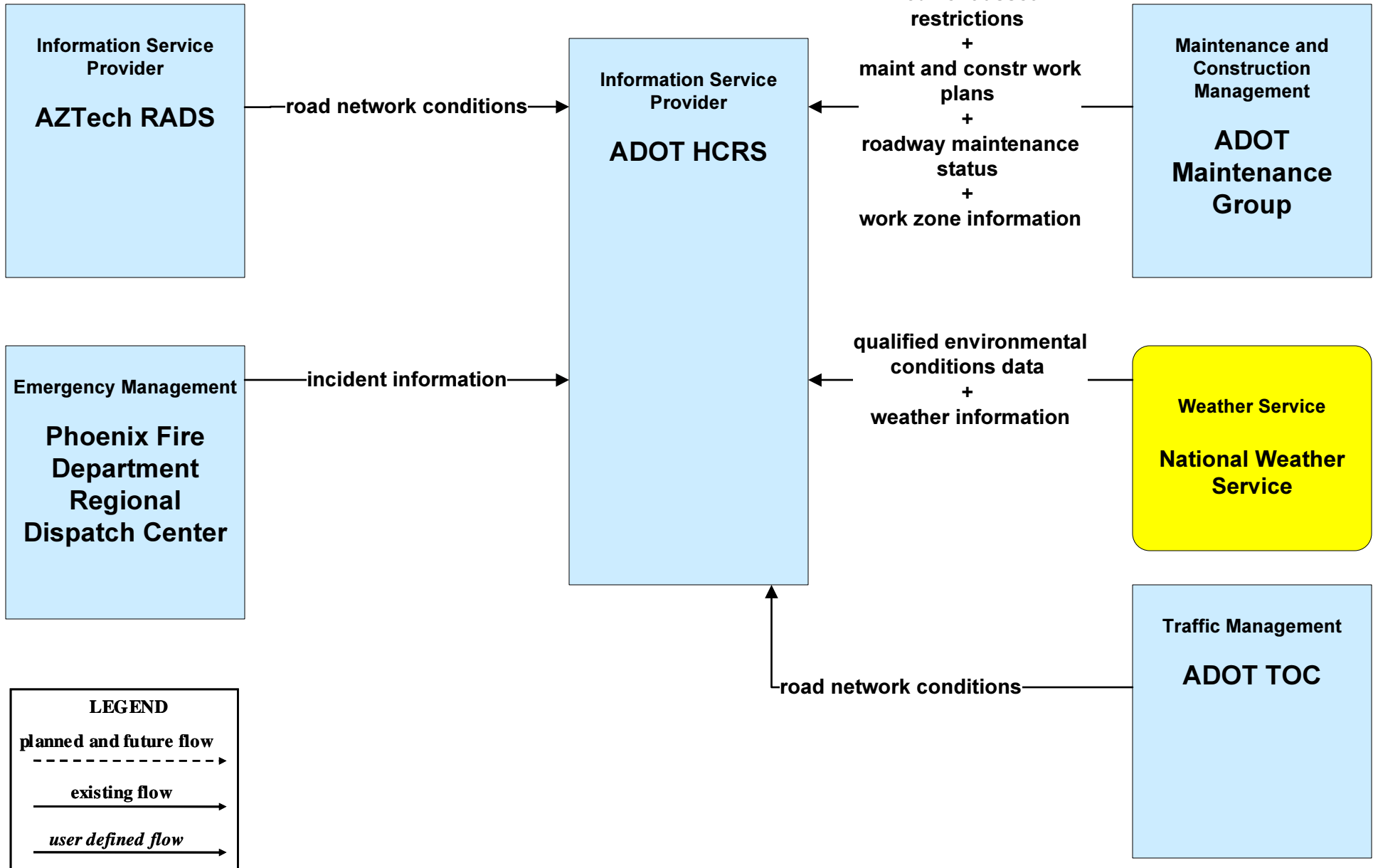
ATMS03 - Traffic Signal Control
City of Phoenix

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix Traffic Signals

signal control commands
+
traffic sensor control

signal control status
+
traffic flow

LEGEND

planned and future flow

- - - - - - - - - ▶

existing flow

─────────▶

user defined flow

─────────▶

ATMS06 - Traffic Information Dissemination
City of Phoenix

Emergency Management

Phoenix Fire Department Regional Dispatch Center + Phoenix Police Dispatch

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix DMS

roadway information system status

road network conditions

roadway information system data

Transit Management

Local Dial-A-Ride Transit Dispatches + Valley Metro OCC

road network conditions

LEGEND

planned and future flow

existing flow

user defined flow

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS07 - Regional Traffic Management
AZTech C2C TMS Network

Traffic Management

ADOT FMS
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Peoria TMC
+
City of Scottsdale TMC
+
City of Tempe TMC
+
MCDOT TMC

Note that traffic information coordination references the following information only for the purpose of this service package -- incidents, congestion data, traffic data, signal timing plans, and real-time signal control information.

device control request
+
device data
+
device status
+
incident information
+
road network conditions

device control request
+
device data
+
device status
+
incident information
+
road network conditions

Other Traffic Management

AZTech RADS

device control request
+
device data
+
device status
+
incident information
+
road network conditions

device control request
+
device data
+
device status
+
incident information
+
road network conditions

Traffic Management

City of Avondale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Phoenix TMC
+
City of Surprise TMC
+
Local City and Municipal TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

LEGEND
planned and future flow
- - - - - - - - →

existing flow
————————→

user defined flow
————————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
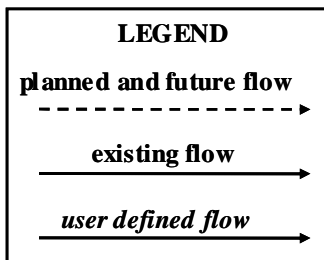
This service package represents the communication between TMCs and the AZTech RADS system and are shown as separate because some are existing and some are planned communications.

ATMS07 - Regional Traffic Management
AZTech C2C DMS Network

This service package represents the communication between TMCs and the AZTech RADS system and are shown as separate because some are existing and some are planned communications. The existing flows to TMCs represent the coordination occurring along the Bell Road corridor.

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
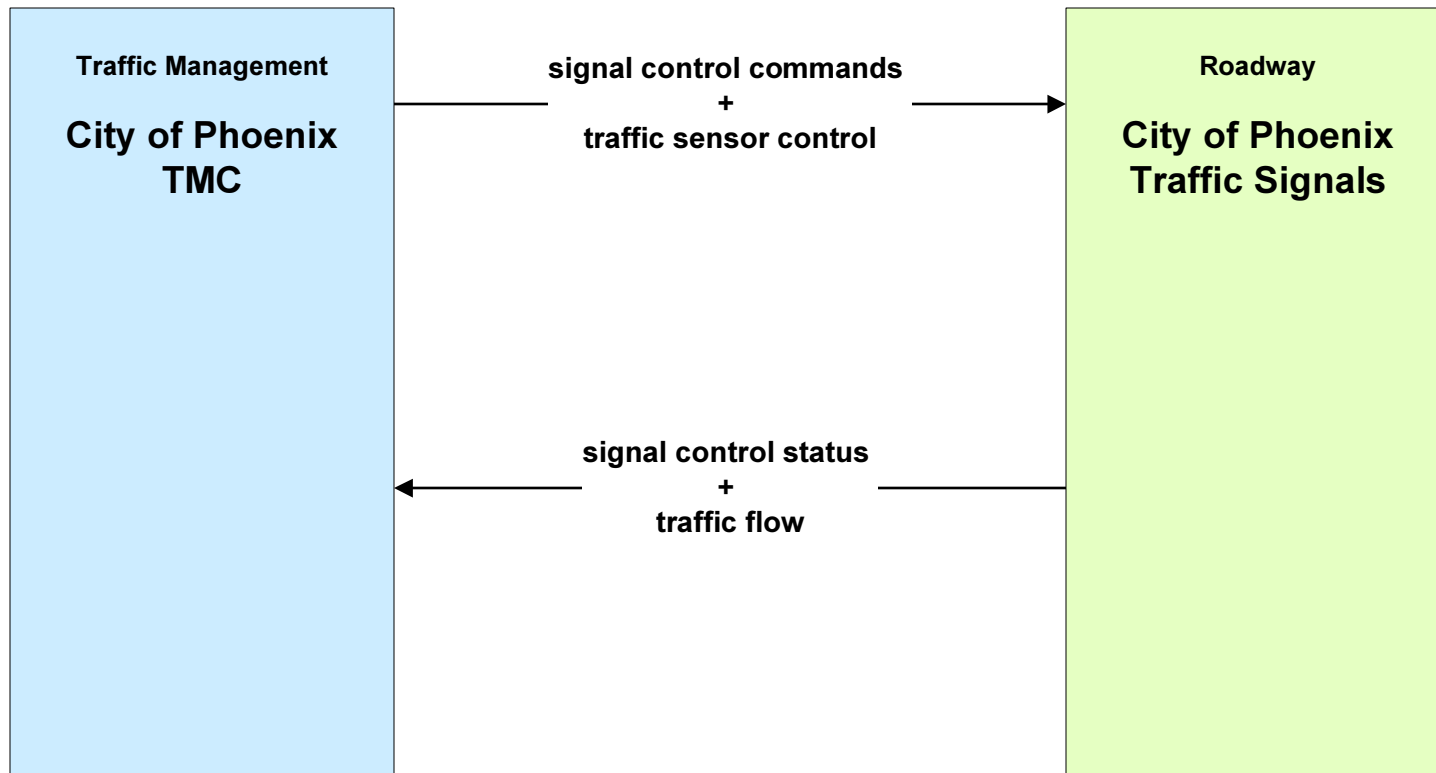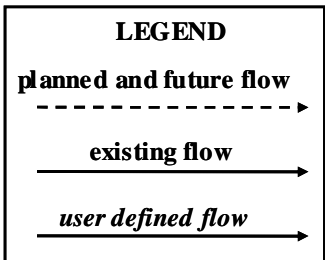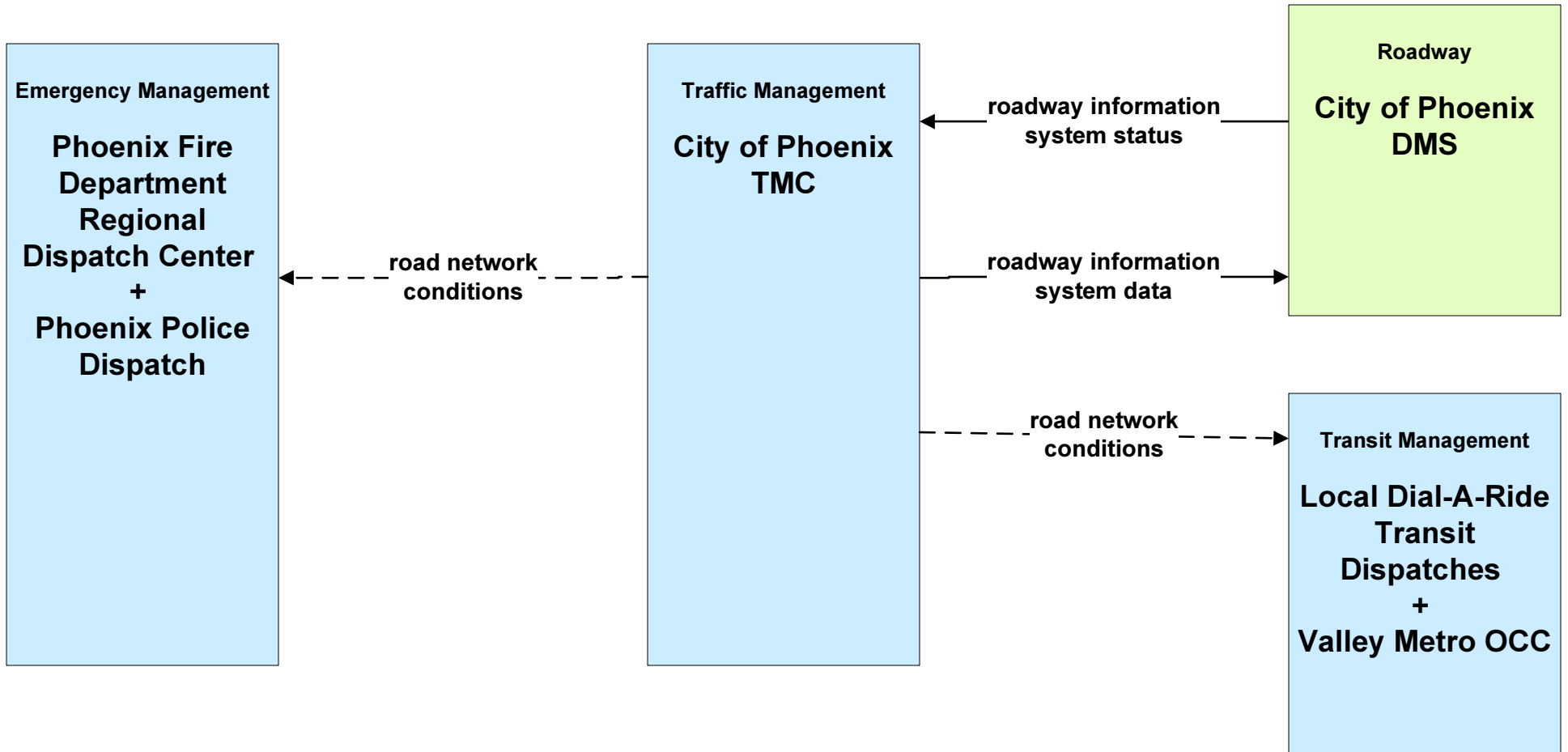
Traffic Management

**City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC**

Other Traffic Management

AZTech RADS

device control request
+
device data
+
device status

device control request
+
device data
+
device status

device control request
+
device data
+
device status

device control request
+
device data
+
device status

Traffic Management

**ADOT TOC
+
City of Peoria TMC
+
City of Surprise TMC
+
MCDOT TMC**

LEGEND

planned and future flow
- - - - - - - - - - ►

existing flow
————————►

user defined flow
————————►

ATMS07 - Regional Traffic Management
Phoenix Metropolitan C2C CCTV Network

Traffic Management

City of Avondale TMC
+
City of Goodyear TMC
+
City of Scottsdale TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
Town of Queen Creek TMC

Emergency Management

Arizona DPS
+
MCSO Dispatch Center
+
Phoenix Fire Department Regional Dispatch Center

This information is shared through the RCN Network. Existing communications represent agencies connected as part of RCN Phase 1A. Other agencies are shown as future connecting.

Other Traffic Management

Phoenix Metropolitan C2C CCTV Network

— traffic images —

— traffic images —

traffic images →

traffic images

— traffic images —

This information is shared through an Internet connection. DPS currently receives traffic images and has video surveillance control of ADOT CCTV cameras.

Traffic Management

ADOT TOC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Surprise TMC
+
MCDOT TMC
+
Town of Gilbert TMC

LEGEND

planned and future flow - - - →

existing flow →

user defined flow →

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS08 – Traffic Incident Management System
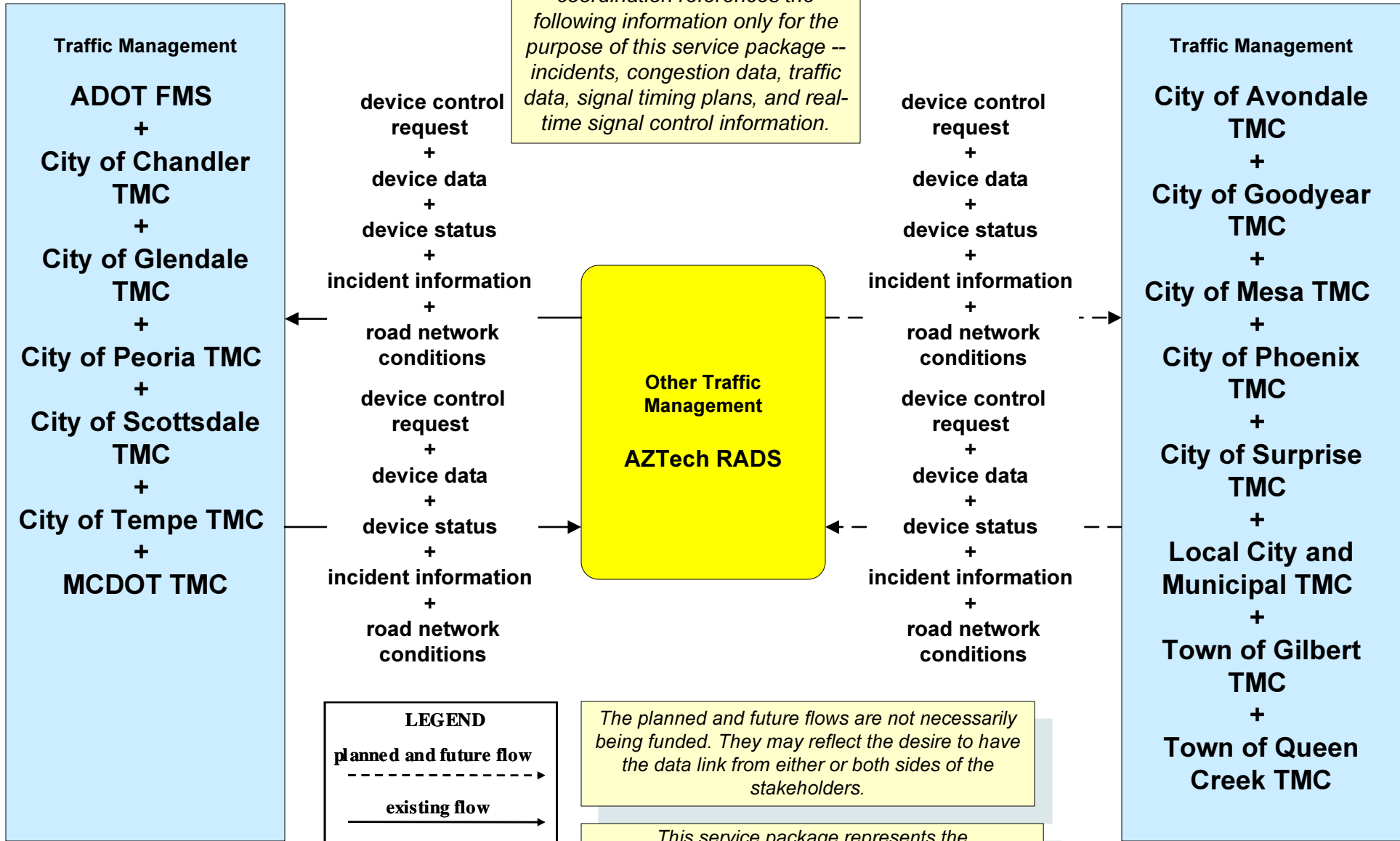## Arizona DOT (TM to EM)

Emergency Management

Phoenix Fire Department Regional Dispatch Center

incident information + incident response status →

incident information + incident response status ←

Traffic Management

ADOT TOC

← incident information + resource request

incident information + resource request →

Emergency Management

Arizona DPS
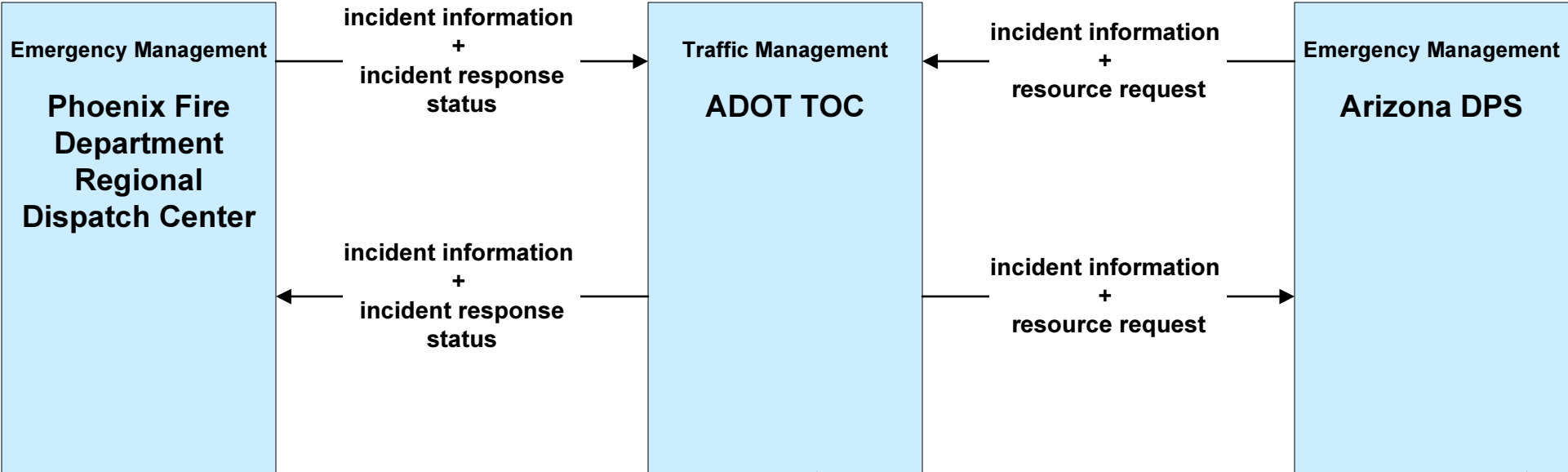
Note: the incident management interface between ADOT TOC and Phoenix Fire Department Regional Dispatch Center runs through the AZTech RADS.
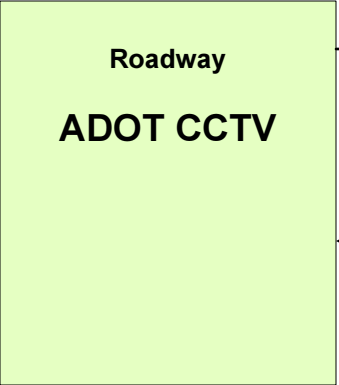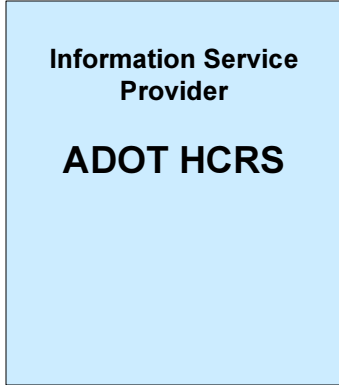
Information Service Provider

ADOT HCRS

← incident information + road network conditions

Roadway

ADOT CCTV

traffic images →

video surveillance control ←

LEGEND

planned and future flow - - - - - →

existing flow ——→

user defined flow ——→
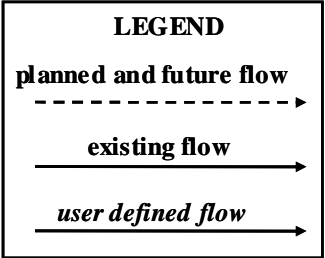
ATMS08 - Traffic Incident Management System
Maricopa County (TM to EM)

Emergency Vehicle

MCDOT REACT Vehicles

← decision support information ←

Traffic Management

MCDOT TMC

incident information + incident response status + resource request →

Emergency Management

Arizona DPS + Phoenix Fire Department Regional Dispatch Center

incident information + incident response status + resource deployment status →

Emergency Management

MCSO Dispatch Center

incident information + incident response status →

incident information + incident response status ←

Note: the incident management interface between MCDOT TMC and Phoenix Fire Department Regional Dispatch Center runs through the AZTech RADS.

Information Service Provider

AZTech RADS

road network conditions + traffic images →

road network conditions + traffic images

LEGEND

planned and future flow - - - →

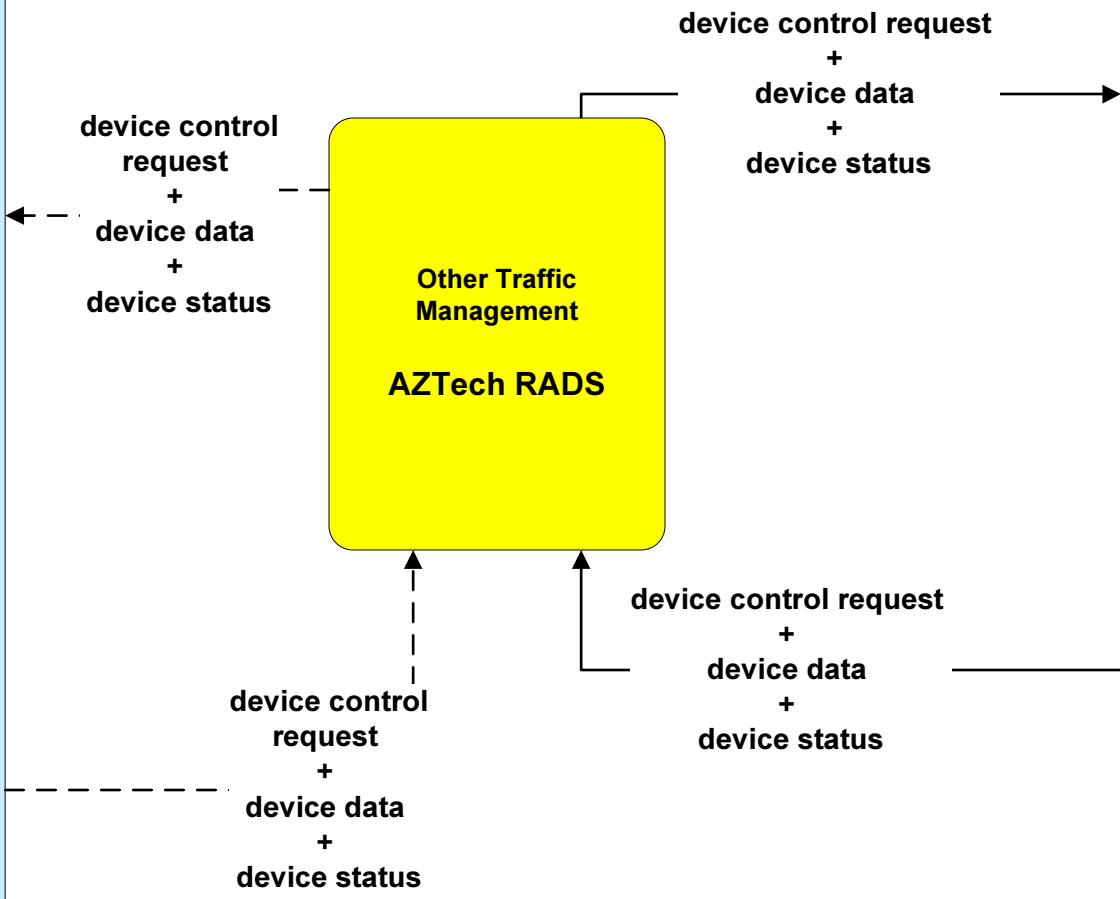existing flow ──→

user defined flow ──→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS08 - Traffic Incident Management System
City of Phoenix (TM to EM)

Traffic Management

City of Phoenix TMC

incident information
+
incident response status
+
resource request

incident information
+
resource deployment status
+
road network conditions
+
traffic images

Emergency Management

Phoenix Fire Department Regional Dispatch Center
+
Phoenix Police Dispatch

LEGEND

planned and future flow
- - - - - - - - - ->

existing flow
——————>

user defined flow
——————>

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS09 – Transportation Decision Support and Demand Management
ADOT ICM/ATM

Information Service Provider

ADOT HCRS

Traffic Management

ADOT TOC

road network conditions + traffic images

traffic sensor control

Roadway

ADOT Lane Management Infrastructure

traffic flow

Other Traffic Management

City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Tempe TMC

road network conditions

request transit information + transit demand management request

Transit Management

METRO Light Rail OCC
+
Phoenix Public Transit OCC
+
Valley Metro OCC

transit demand management response + transit system data

road network conditions

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND

planned and future flow

existing flow

user defined flow

ATMS13 - Standard Railroad Grade Crossing
City of Phoenix
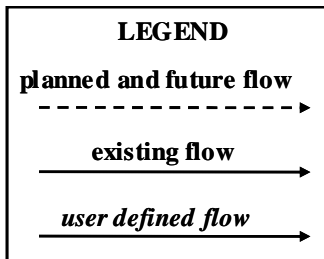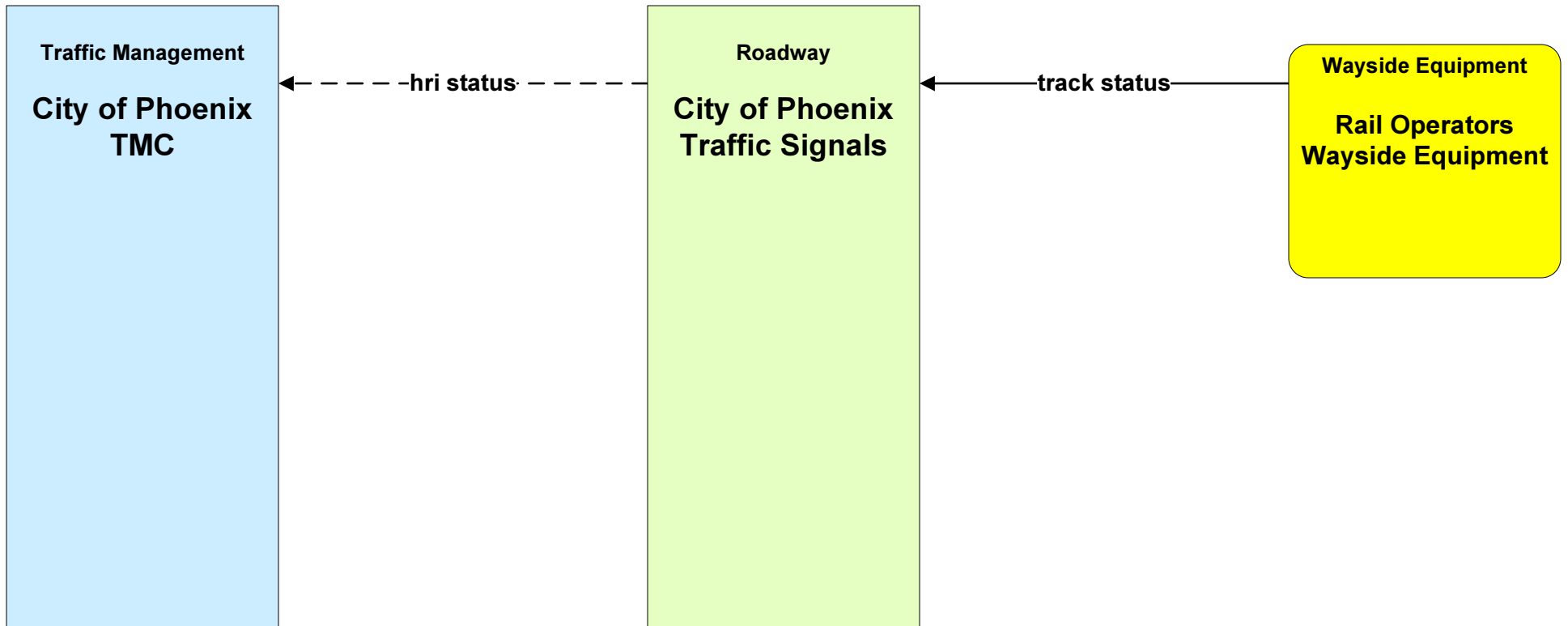
Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix Traffic Signals

Wayside Equipment

Rail Operators Wayside Equipment

← – – hri status – – – – –

← track status

LEGEND

planned and future flow

- – – – – – – – – →

existing flow

——————→

user defined flow

——————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS19 - Speed Warning and Enforcement
Local Cities and Municipalities
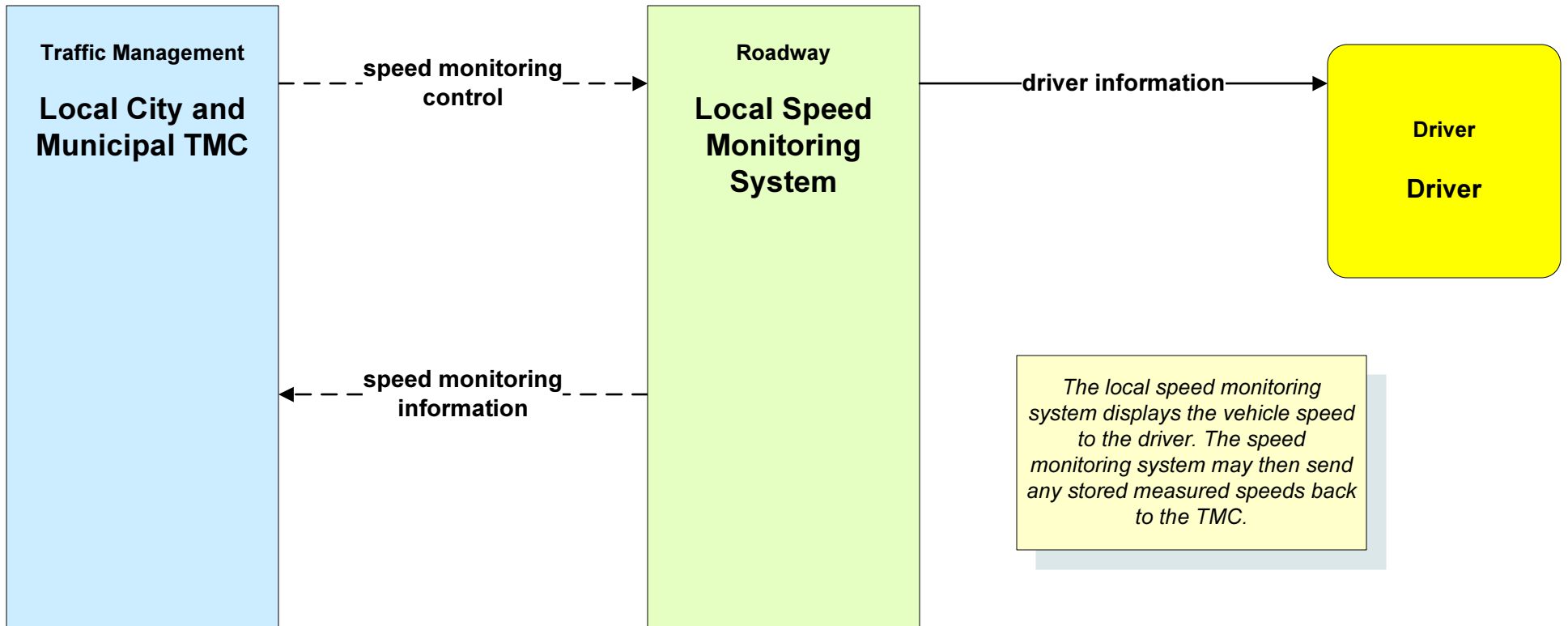
Traffic Management

Local City and Municipal TMC

- - - speed monitoring control - - ->

<- - - speed monitoring information - - -

Roadway

Local Speed Monitoring System

———driver information———>

Driver

Driver

The local speed monitoring system displays the vehicle speed to the driver. The speed monitoring system may then send any stored measured speeds back to the TMC.

LEGEND

planned and future flow
- - - - - - - - - ->

existing flow
———————>

user defined flow
———————>

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS23 – Dynamic Lane Management and Shoulder Use
City of Phoenix

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix Lane Control Signs

lane management control ──────►

◄────── lane management information

LEGEND

planned and future flow
- - - - - - - - - ►

existing flow
─────────►

user defined flow
─────────►

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

ATMS26 – Mixed Use Warning Systems
City of Phoenix

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix HAWK Signals

**road user protection device control
+
roadway warning system control
+
signal control commands
+
traffic sensor control**

**right-of-way request notification
+
road user protection data
+
roadway warning system status
+
signal control status
+
signal fault data**

LEGEND

planned and future flow

- - - - - - - - - - - ►

existing flow

──────────►

user defined flow

──────────►

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

EM01 - Emergency Call-Taking and Dispatch
Public Safety Video Distribution System

Emergency Management

ADEM SEOC
+
ADOT EOC
+
Arizona DPS
+
Local EOCs
+
Local Fire and EMS Dispatch
+
Local Police Dispatch
+
Maricopa County EOC
+
MCSO Dispatch Center
+
Other Police Dispatch
+
Phoenix Fire Department Regional Dispatch Center

Other Emergency Management

Public Safety Video Distribution System

← traffic images

← traffic images

→ traffic images

Video from all TMCs can pass through these paths.

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Traffic Management

ADOT FMS
+
ADOT TOC
+
City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
MCDOT TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

LEGEND

planned and future flow
- - - - - - - - →

existing flow
——————→

user defined flow
——————→

EM01 - Emergency Call-Taking and Dispatch
Arizona DPS

Emergency Management

Phoenix Fire Department Regional Dispatch Center

Emergency Management

Arizona DPS

Emergency Vehicle

Arizona DPS FSP
+
Arizona DPS Vehicles

emergency dispatch requests

incident report
+
incident response coordination
+
resource coordination

emergency dispatch response
+
emergency vehicle tracking data

LEGEND

planned and future flow

existing flow

user defined flow

EM01 - Emergency Call-Taking and Dispatch
Maricopa County Sheriff's Office

Emergency Management

Arizona DPS

incident report
+
incident response
coordination
→

incident report
+
incident response
coordination
←

Emergency Management

MCSO Dispatch Center

emergency dispatch
response
+
emergency vehicle
tracking data
←

Emergency Vehicle

MCSO Vehicles
+
MCDOT REACT Vehicles

Emergency Management

Local Fire and EMS Dispatch
+
Local Police Dispatch
+
Phoenix Fire Department Regional Dispatch Center

incident report
+
incident response
coordination
⇢

incident report
+
incident response
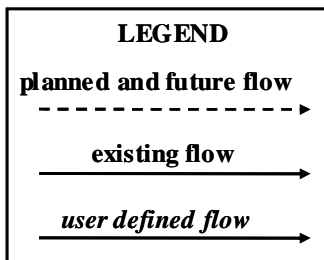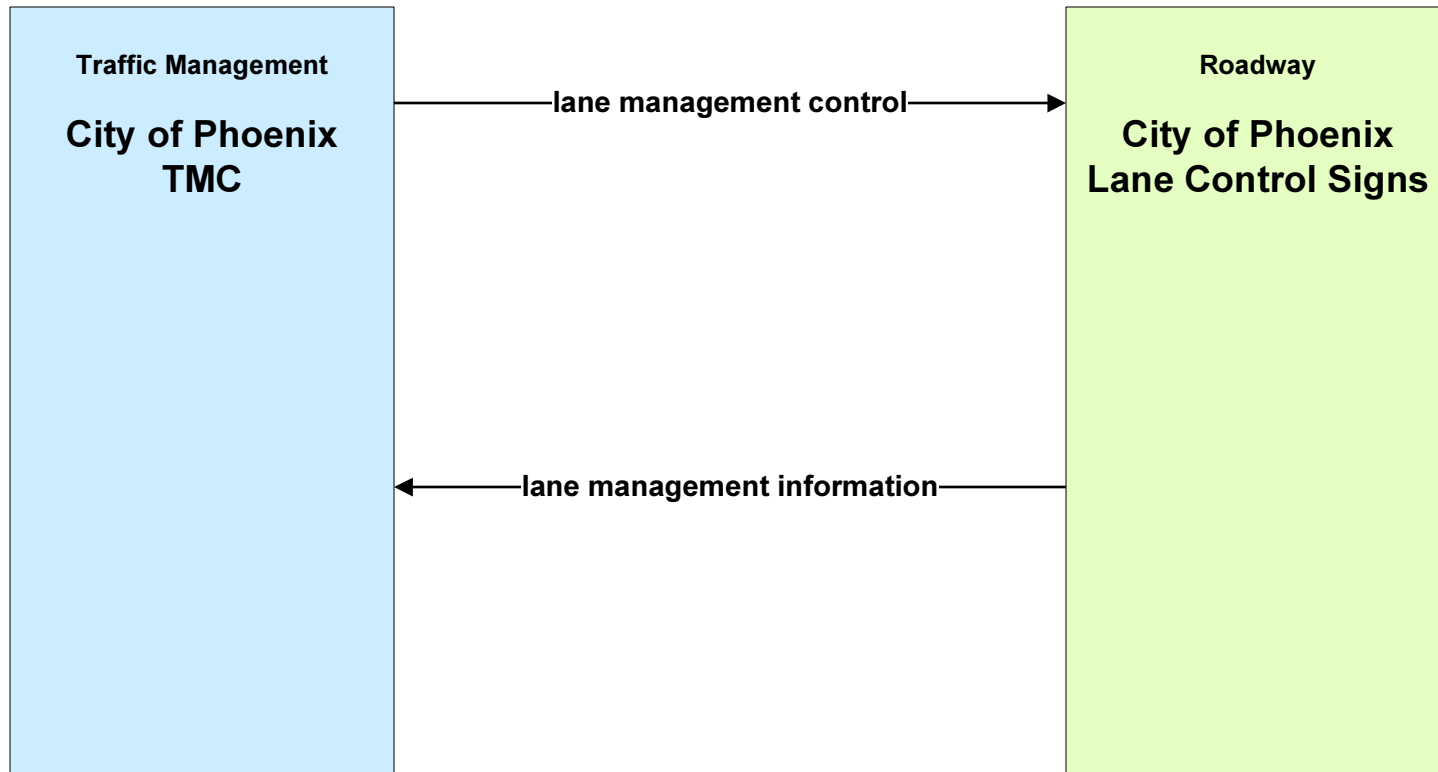coordination
⇠

emergency dispatch
requests
→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND

planned and future flow
⇢ - - - →

existing flow
——→

user defined flow
——→

EM01 - Call-Taking and Dispatch
REACT Vehicles

Emergency Management

Local Police Dispatch
+
MCSO Dispatch Center
+
Phoenix Fire Department Regional Dispatch Center

Emergency Vehicle

MCDOT REACT Vehicles

Emergency Vehicle

ADOT ALERT Vehicles

← *incident report_ud* **+** *incident response coordination_ud*

incident report_ud **+** *incident response coordination_ud* →

← emergency dispatch response **+** incident status

emergency dispatch requests →

Emergency Vehicle

Local City and Municipal REACT Vehicles

← emergency dispatch response **+** incident status

emergency dispatch requests →

REACT vehicles are not necessarily roving vehicles.

LEGEND

planned and future flow - - - - - →

existing flow ——————→
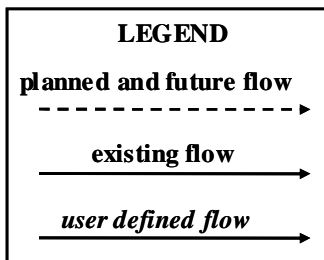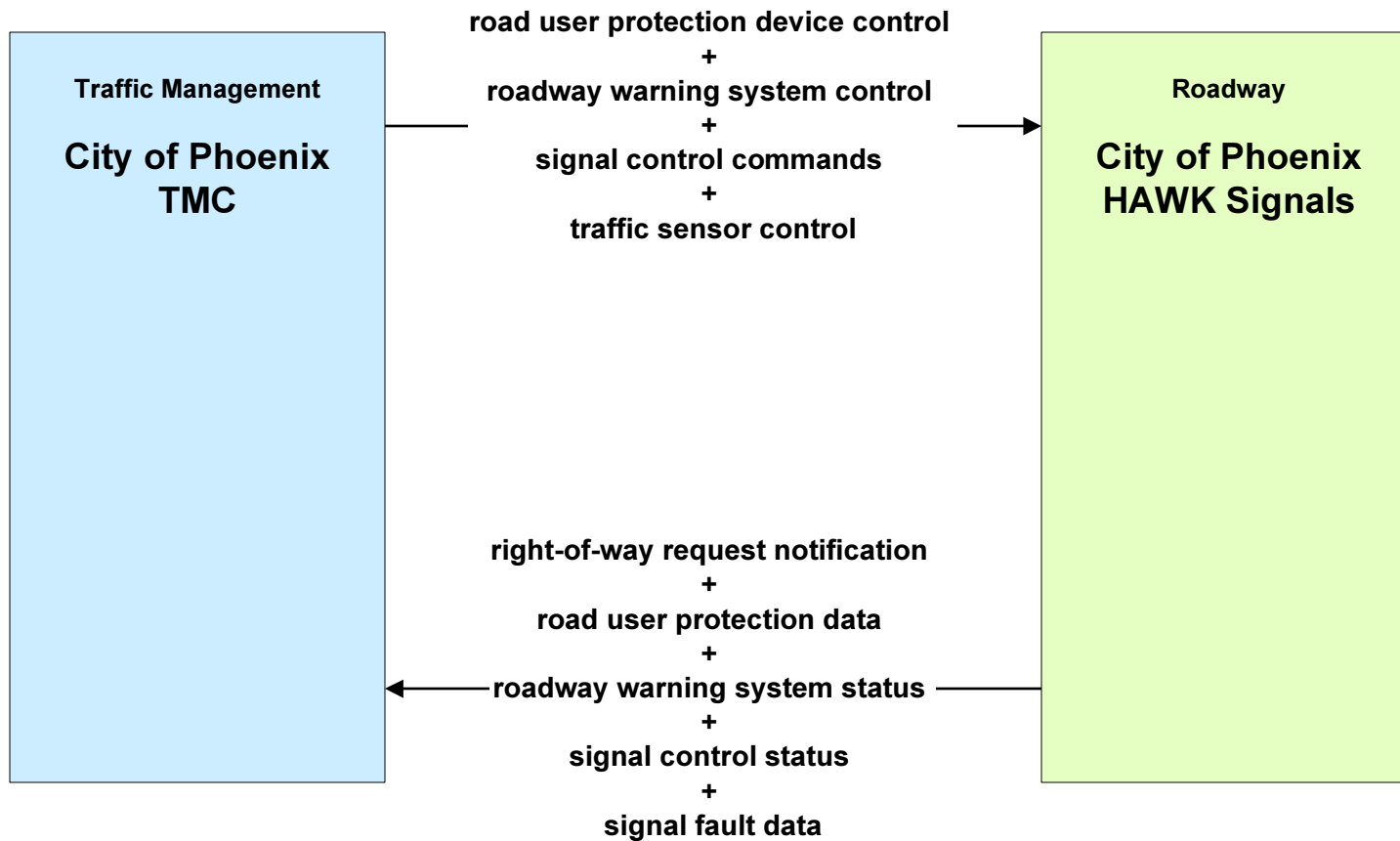
user defined flow ——————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

EM02 - Emergency Routing
City of Phoenix

Traffic Management

City of Phoenix TMC

Roadway

City of Phoenix Traffic Signals

Emergency Vehicle

Local Fire/EMS Vehicles
+
Phoenix Fire/ EMS Vehicles

signal control commands →

← local signal preemption request

right-of-way request notification
+
signal control status
←

LEGEND

planned and future flow
- - - - - - - - →

existing flow
————————→
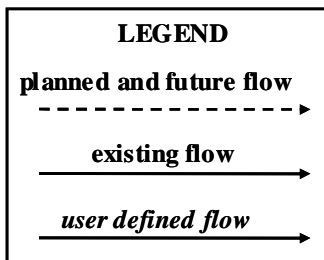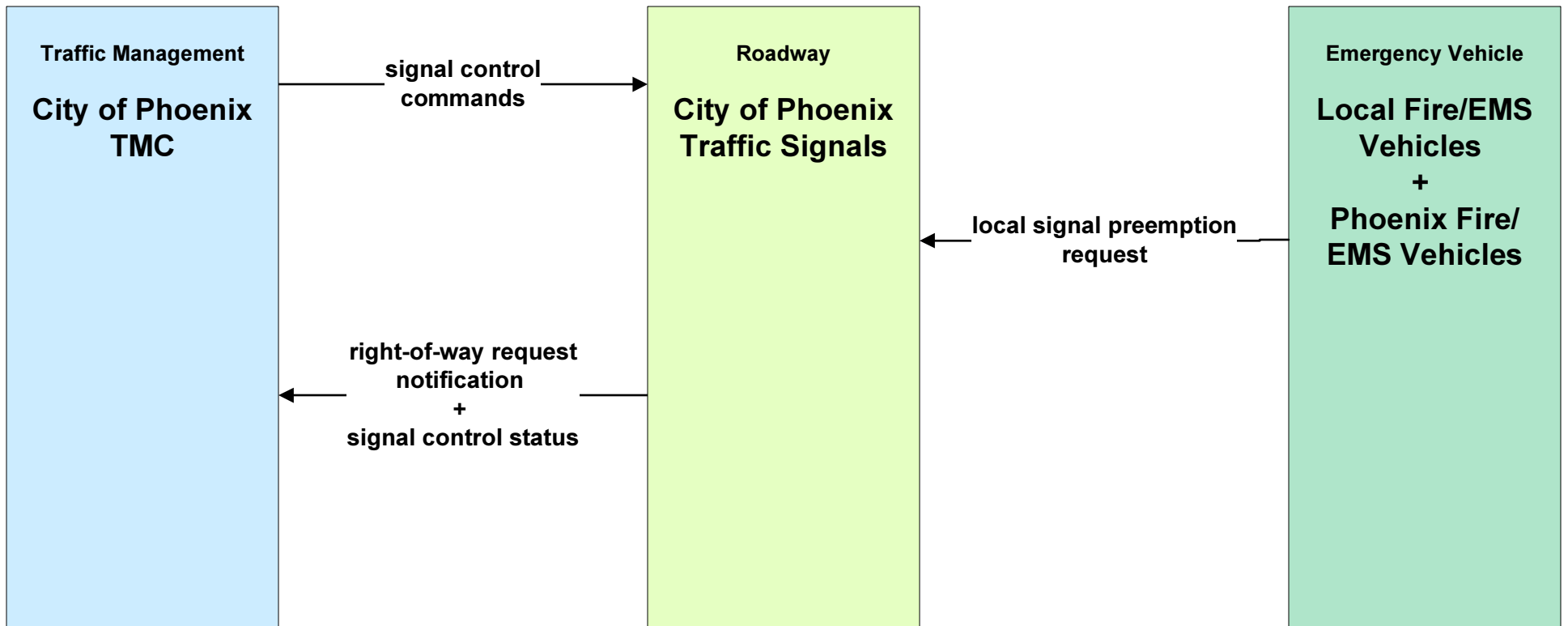
user defined flow
————————→

EM06 - Wide-Area Alert
Maricopa County
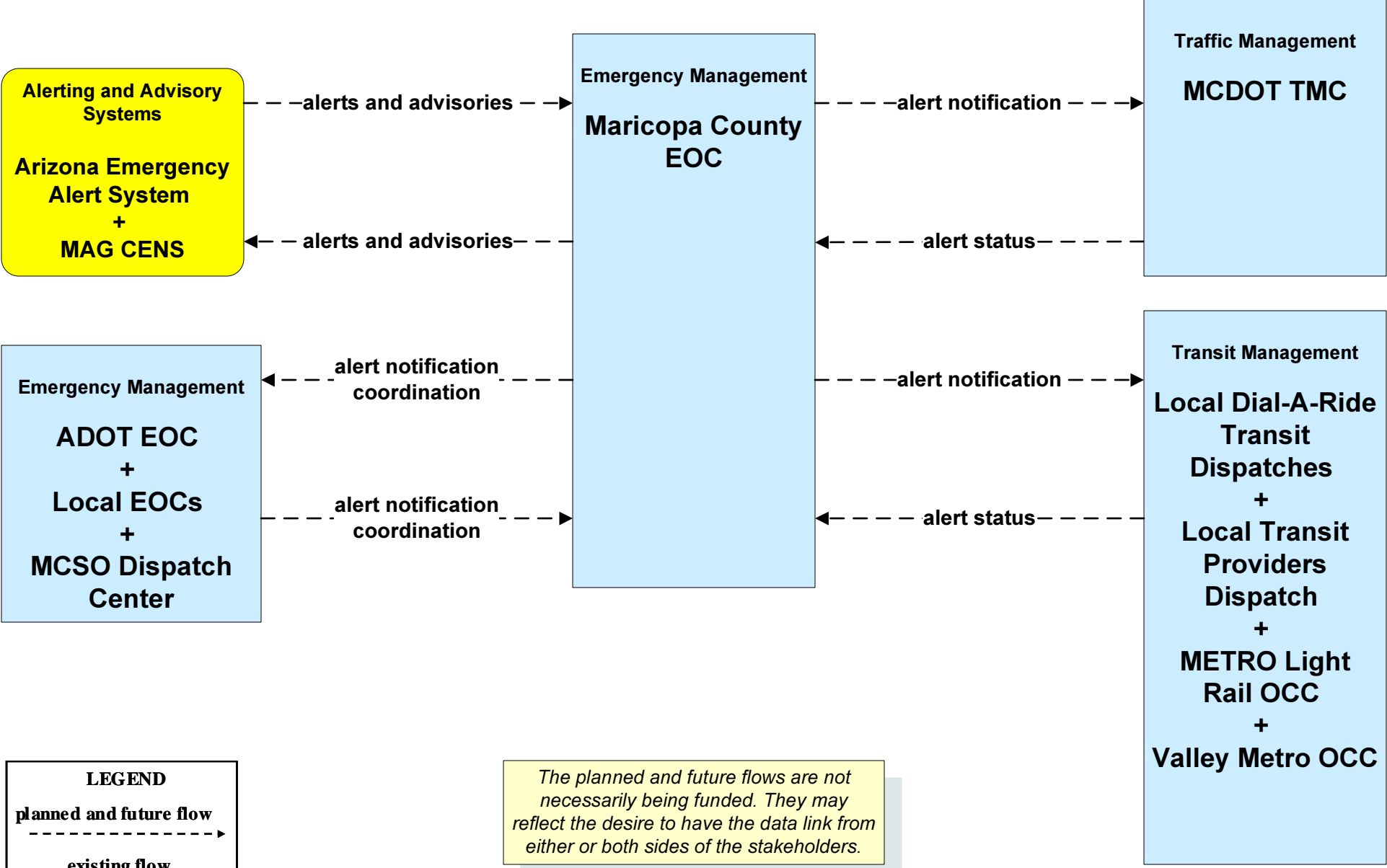
Alerting and Advisory Systems

Arizona Emergency Alert System
+
MAG CENS

— alerts and advisories — →

← — alerts and advisories — —

Emergency Management

Maricopa County EOC

— alert notification — —→

Traffic Management

MCDOT TMC

← — alert status — —

← — alert notification coordination — —

← — alert notification — —

Emergency Management

ADOT EOC
+
Local EOCs
+
MCSO Dispatch Center

— alert notification coordination — →

Transit Management

Local Dial-A-Ride Transit Dispatches
+
Local Transit Providers Dispatch
+
METRO Light Rail OCC
+
Valley Metro OCC

← — alert status — —

LEGEND

planned and future flow
- - - - - - - →
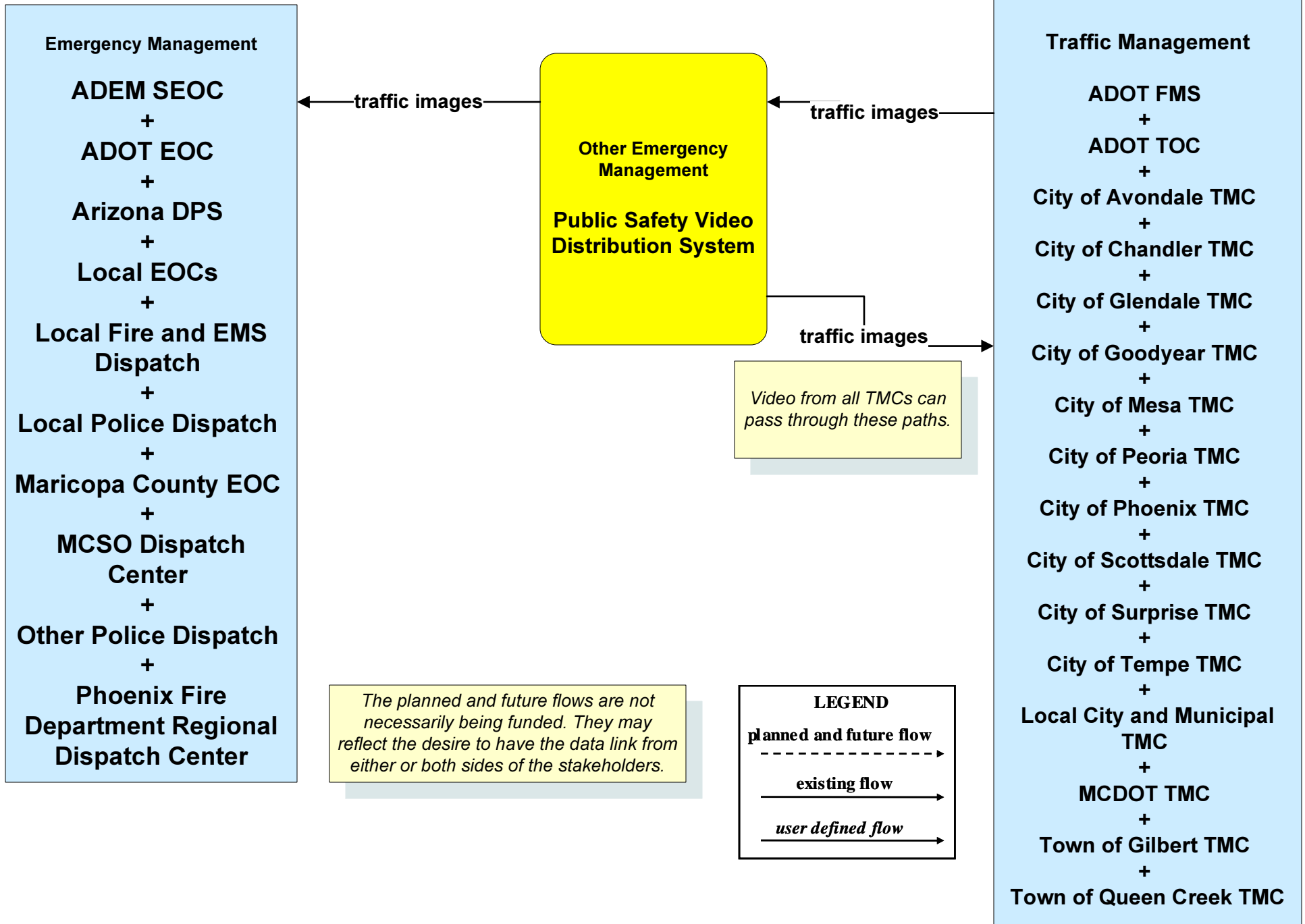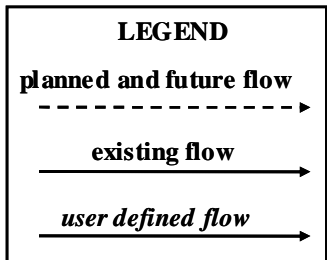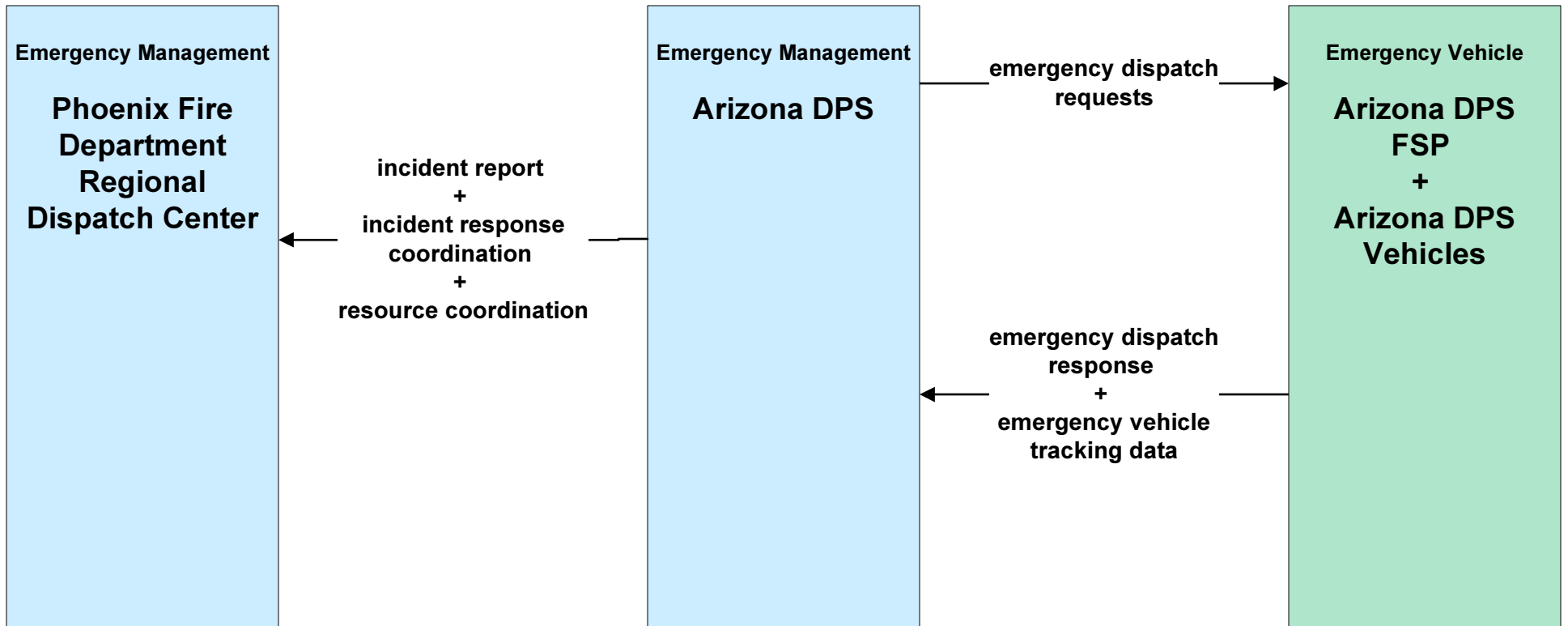
existing flow
——————→

user defined flow
——————→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

EM06 - Wide-Area Alert
Local EOCs (1 of 2)

Emergency Management

**ADEM SEOC
+
Arizona DPS
+
Local Police
Dispatch
+
Maricopa County
EOC
+
MCSO Dispatch
Center**

Emergency Management

Local EOCs

Alerting and Advisory Systems

Arizona Emergency Alert System

Information Service Provider

Local PIOs

alert notification coordination →

← alerts and advisories —

— alerts and advisories →

← alert notification coordination —

— alert notification →

← alert status —

LEGEND

planned and future flow - - - - →

existing flow ──────→

user defined flow ──────→

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.
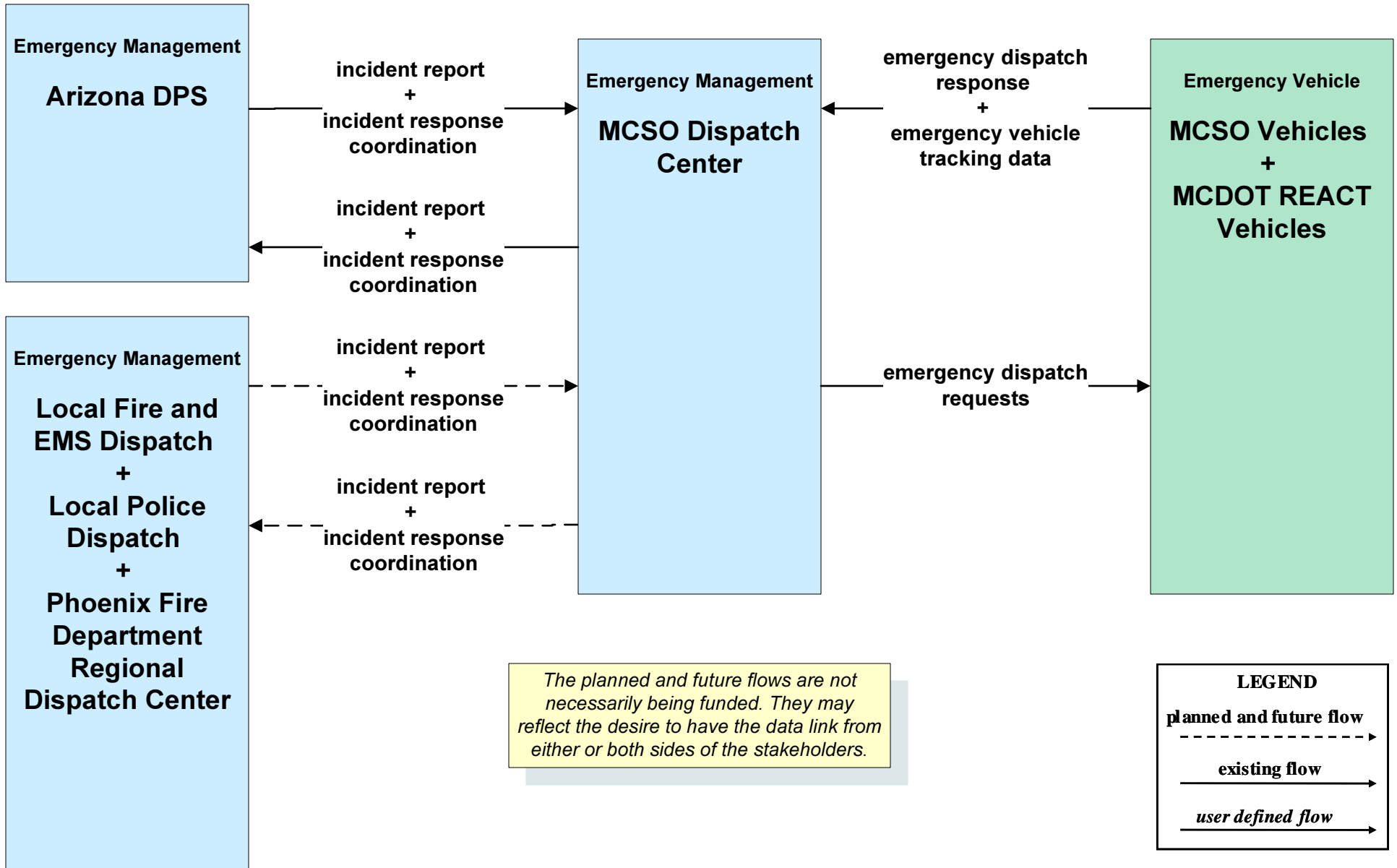
Traffic Management

City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

Emergency Management

Local EOCs

Transit Management

Local Dial-A-Ride Transit Dispatches
+
Local Transit Providers Dispatch
+
METRO Light Rail OCC
+
Valley Metro OCC

- - alert status - - →

- - alert notification - - →

← - - alert status - - -

← - alert notification - - -

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND
planned and future flow
- - - - - - - - →

existing flow
———————→

user defined flow
———————→

EM06 - Wide-Area Alert
Amber Alerts

Emergency Management

Local Police Dispatch
+
MCSO Dispatch Center
+
Other Police Dispatch
+
Phoenix Police Dispatch

← *amber alerts_ud* —

amber alert confirmation_ud →

Emergency Management

Arizona DPS

— *amber alerts_ud* →

Traffic Management

ADOT TOC
+
City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
MCDOT TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

LEGEND

planned and future flow
- - - - - - - - - →

existing flow
————————→

user defined flow
————————→

EM07 - Early Warning System
Maricopa County EOC

Traffic Management

MCDOT TMC

Transit Management

Local Dial-A-Ride Transit Dispatches
+
Local Transit Providers Dispatch
+
METRO Light Rail OCC
+
Valley Metro OCC

Emergency Management

Maricopa County EOC

Emergency Management

ADEM SEOC
+
ADOT EOC
+
Arizona DPS
+
Local EOCs

Maintenance and Construction Management

Flood Control District of Maricopa County ALERT
+
MCDOT Maintenance Division

incident information
+
threat information

incident information

transit emergency data

incident information
+
threat information

incident report

threat information coordination

incident report

threat information coordination

incident information

incident information
+
threat information

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND

planned and future flow

existing flow

user defined flow

EM07 - Early Warning System
Local EOCs

Emergency Management

Arizona DPS
+
Local Police Dispatch
+
Maricopa County EOC
+
MCSO Dispatch Center

Emergency Management

Local EOCs

Traffic Management

City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Local City and Municipal TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC

‑ ‑ incident report ‑ ‑

‑ incident report

threat information coordination

threat information coordination

incident information + threat information

The information flows represented in this service package are in accordance with NIMS protocols

Maintenance and Construction Management

ADOT Maintenance Group
+
Flood Control District of Maricopa County ALERT
+
Local Public Works Divisions
+
MCDOT Maintenance Division

incident information

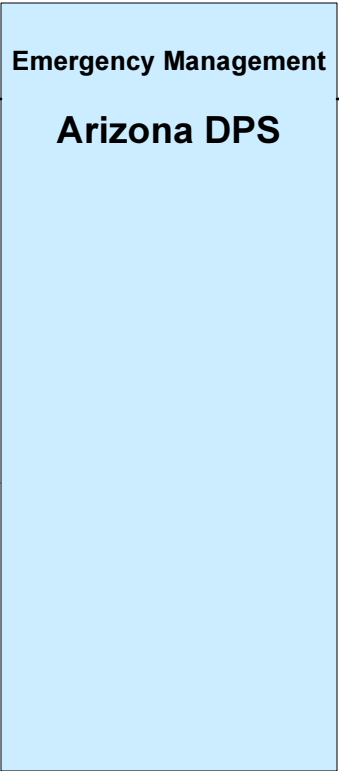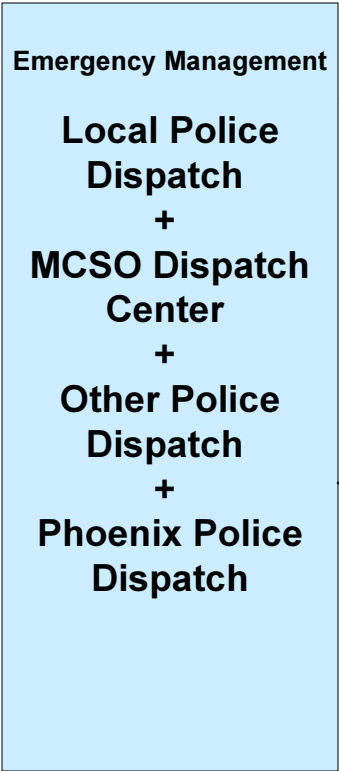incident information

incident information + threat information

incident information

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

LEGEND
planned and future flow ‑ ‑ ‑ ‑ ‑ ‑ >
existing flow ⟶
user defined flow ⟶

MC04 - Weather Information Processing and Distribution
Flood Control District of Maricopa County – Cities and Municipalities

Traffic Management

**City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
MCDOT TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC**

← *road weather information*

Maintenance and Construction Management

Flood Control District of Maricopa County ALERT

road weather information →

Transit Management

**East Valley Dial-A-Ride Transit Dispatch
+
Local Dial-A-Ride Transit Dispatches
+
Local Transit Providers Dispatch
+
Phoenix Dial-A-Ride Transit Dispatch
+
Phoenix Public Transit OCC
+
Valley Metro OCC**

road weather information

Emergency Management

**Local EOCs
+
Local Fire and EMS Dispatch
+
Local Police Dispatch
+
Phoenix Fire Department Regional Dispatch Center
+
Phoenix Police Dispatch**

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

Information Service Provider

Local PIOs

← *road weather information*

LEGEND

- - - - - - → **planned and future flow**

————→ **existing flow**

————→ *user defined flow*

MC10 - Maintenance and Construction Activity Coordination
Arizona DOT

Traffic Management

ADOT TOC

Maintenance and Construction Management

ADOT Maintenance Group

Maintenance and Construction Management

Local Public Works Divisions
+
MCDOT Maintenance Division

current asset restrictions
+
maint and constr work plans

work plan coordination

work plan feedback

Information Service Provider

ADOT HCRS

current asset restrictions
+
maint and constr work plans

work plan coordination

LEGEND

planned and future flow

- - - - - - - - - - - - - - ➤

existing flow

⎯⎯⎯⎯⎯⎯➤

user defined flow

⎯⎯⎯⎯⎯⎯➤

MC10 - Maintenance and Construction Activity Coordination
Maricopa County
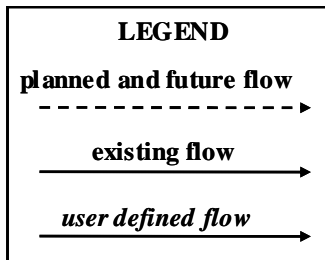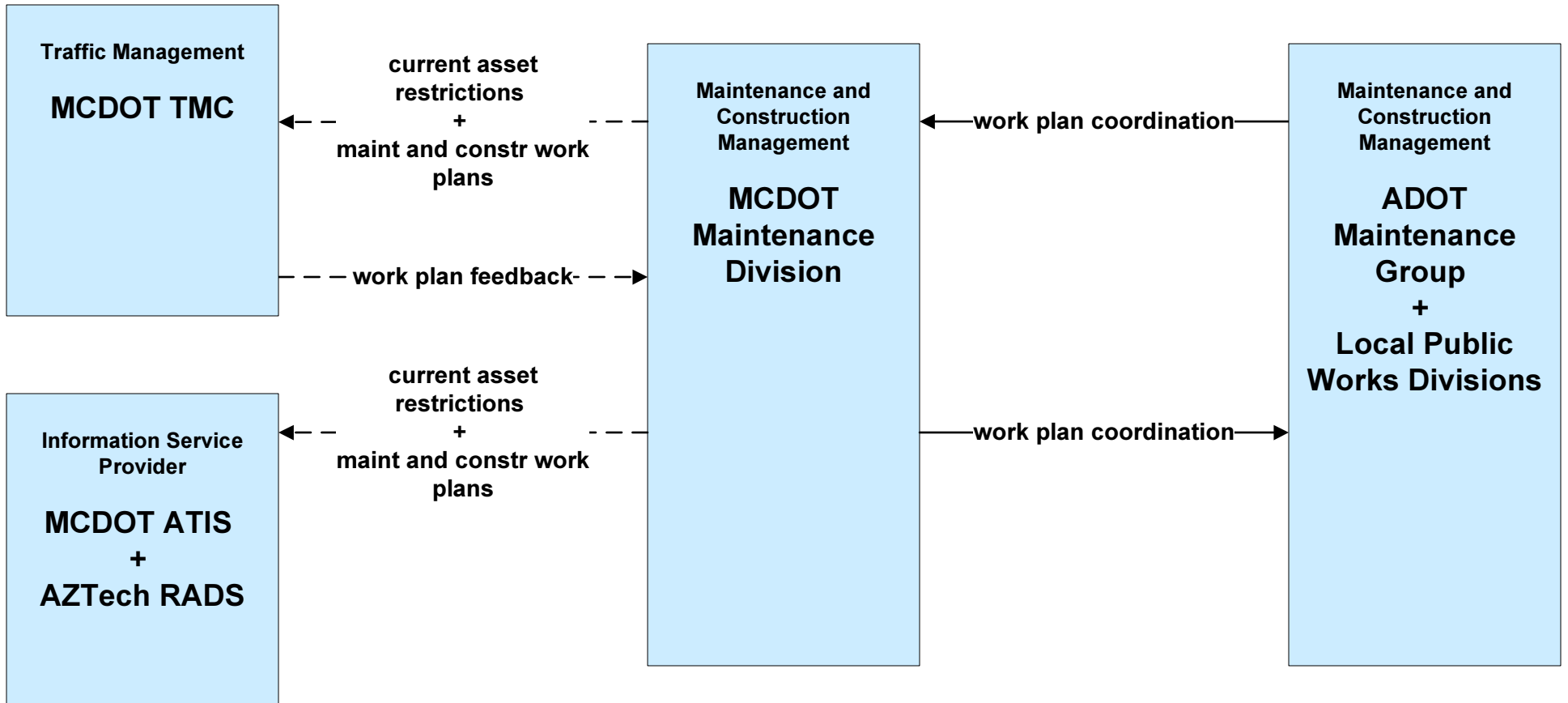
Traffic Management

MCDOT TMC

current asset restrictions
+
maint and constr work plans

work plan feedback

Maintenance and Construction Management

MCDOT Maintenance Division

work plan coordination

Maintenance and Construction Management

ADOT Maintenance Group
+
Local Public Works Divisions

Information Service Provider

MCDOT ATIS
+
AZTech RADS

current asset restrictions
+
maint and constr work plans

work plan coordination

LEGEND

planned and future flow
- - - - - - - - - ►

existing flow
─────────►

user defined flow
─────────►

The planned and future flows are not necessarily being funded. They may reflect the desire to have the data link from either or both sides of the stakeholders.

MC10 - Maintenance and Construction Activity Coordination
Local Cities and Municipalities

Traffic Management

**City of Avondale TMC
+
City of Chandler TMC
+
City of Glendale TMC
+
City of Goodyear TMC
+
City of Mesa TMC
+
City of Peoria TMC
+
City of Phoenix TMC
+
City of Scottsdale TMC
+
City of Surprise TMC
+
City of Tempe TMC
+
Local City and Municipal
TMC
+
Town of Gilbert TMC
+
Town of Queen Creek TMC**

Maintenance and Construction Management

Local Public Works Divisions

current asset restrictions + maint and constr work plans

work plan feedback

work plan coordination

Maintenance and Construction Management

**ADOT Maintenance Group
+
MCDOT Maintenance Division
+
Other City and Municipal Public Works**

Some jurisdictions provide maintenance and construction coordination through their TMCs rather than their local public works divisions. E.g., City of Glendale.

work plan coordination

current asset restrictions + maint and constr work plans

Information Service Provider

**Local PIOs
+
AZTech RADS**

LEGEND

planned and future flow ----->

existing flow ------>

user defined flow ------>