



May 31, 2018

## SMART REGION SACRAMENTO

ITS Architecture and Future Technology Master  
and Implementation Plan

CONCEPT OF OPERATIONS WORKSHOP



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# Agenda

- Introductions
- Meeting Purpose & Project Overview
- Regional Overview
  - Needs Summary
  - Stakeholders' Roles and Responsibilities
- Break-Out Discussions on Operational Scenarios
- Next Steps
- Lunch Break, Noon - 1:00  
(Lunch to be provided)
- Session #2, 1:00 - 3:00
  - Emerging Data/Data Standards
  - STARNET Modernization



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## Meeting Purpose and Project Overview

- Develop a regional Concept of Operations to enhance cooperation in the Region
- Assess the need and evaluate the requirements for new and emerging data sources and center-to-center information sharing.

Concept of  
Operations

STARNET  
Modernization  
Plan

Regional  
Technology Master  
Plan



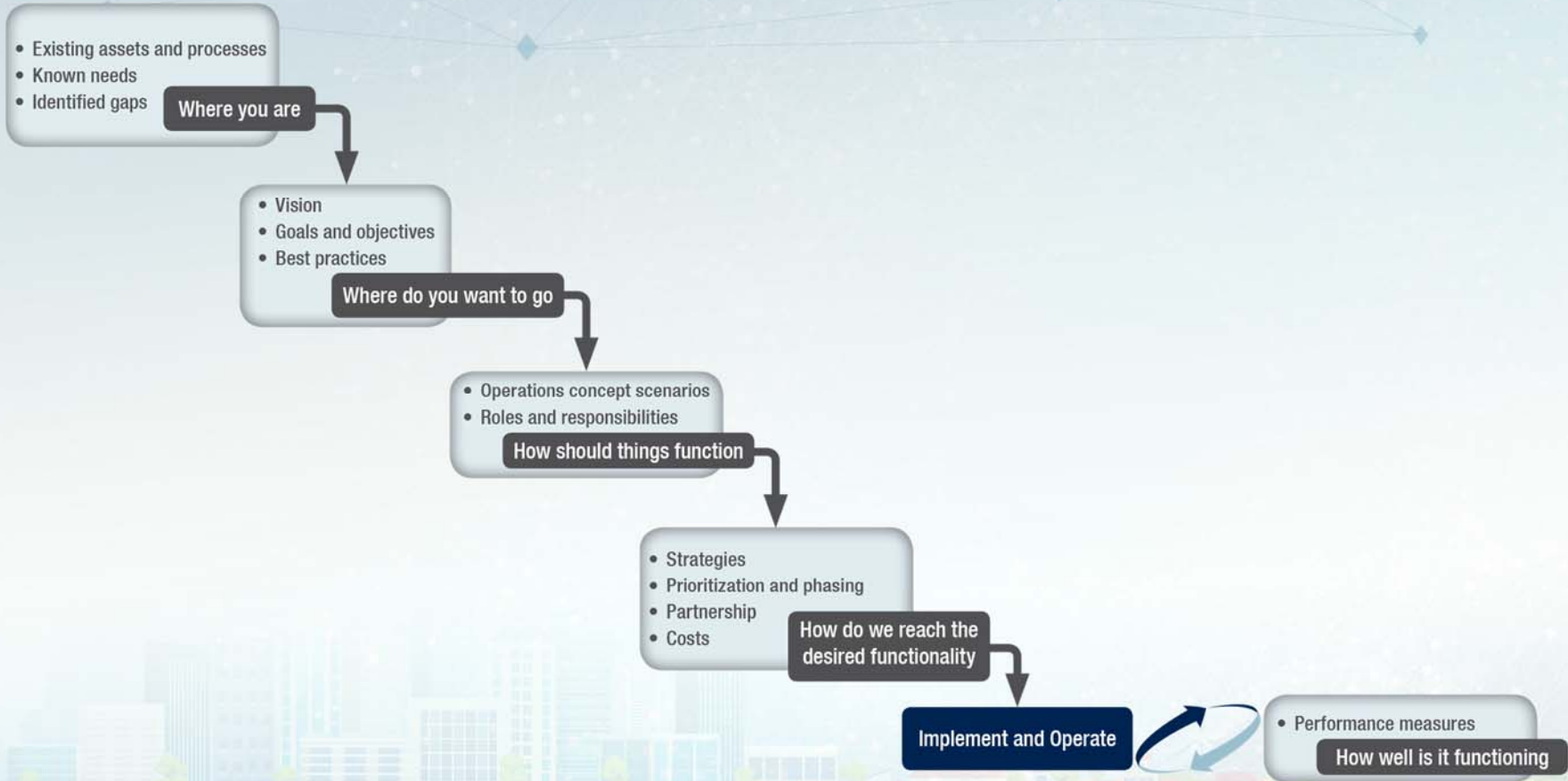
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# Regional Needs Methodology



# Regional Needs Collection

## Stakeholder Interviews

- SACOG
  - City of Citrus Heights
  - City of Elk Grove
  - City of Rancho Cordova
  - City of Folsom
  - Sacramento County
  - El Dorado County
  - City of Sacramento
  - Caltrans District 3
- Review of existing documentation related to transportation and technology
  - Knowledge of technological trends and changing environments in transportation planning and operations



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# Regional Needs

## Infrastructure/ Data Needs

- Maintenance support
- Regional communication
- Regional traffic data

## Operational Needs

- Consistent traveler information strategies
- Staffing for operations
- Formalized interagency coordination
- Interagency data sharing

## Institutional Needs

- Performance measurement
- Regional project programming processes
- ITS and communication device system standards
- Regional security standards and assessment
- Asset tracking/lifecycle programming



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# Roles and Responsibilities

Agency	Roles and Responsibilities
SACOG	Collect and archive transportation data for the region
Caltrans District 3	Operate and maintain State highways; devices on highways; traffic signal systems on State owned arterials; collect and provide traffic information on highways and State owned arterials to public and other agencies; coordinate operation and maintenance resource response to incidents with state, county and local agencies
County/Local Agencies	Operate and maintain traffic signal systems; perform incident detection and verification; dispatch police, fire and emergency management services; maintain roads within agency limits; provide traffic and maintenance information to the public and other agencies
Sacramento Regional Transit District	Operate light rail system; provide fixed bus service and paratransit services
County/Local Transit Agencies	Provide fixed bus service and paratransit services
CHP	Receive emergency calls; dispatch State police and Freeway Service Vehicles; coordinate incident response with Caltrans, County and local agencies
County Sheriff	Develop county emergency preparedness plan, provide emergency operations during major emergencies and disasters
Tahoe Gateway	Coordinate regional emergency management between Sacramento and Tahoe regions

## Operational Scenarios

- Break into two groups
- Discuss scenarios
  - Major Incidents - Freeway
  - Major Incidents - Arterial
  - Planned Events
  - Recurring Congestion
  - Natural Disasters



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## Discussion Topics

- Role of Maintenance
- Connected Vehicles
- Active Transportation
- Data needs - Real time and historic
- Performance measures



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# LUNCH BREAK



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# SESSION 2

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## Session 2: Data and STARNET

- Session Agenda
  - Introductions
  - Goal of the session
  - Session format
  - Topics to be covered in the session
    - Data and Data Standards
    - STARNET Improvements



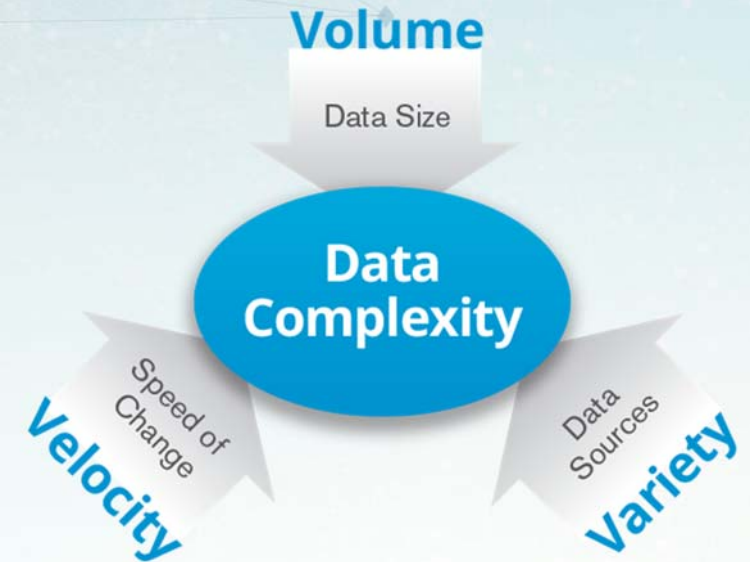
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## What is Big Data?

- **Wikipedia:** an all-encompassing term for any collection of data sets so large and complex that it becomes difficult to process using on-hand data management tools or traditional data processing applications
- **Oxford English Dictionary:** data of a very large size, typically to the extent that its manipulation and management present significant logistical challenges



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# Big Data in Transportation Systems

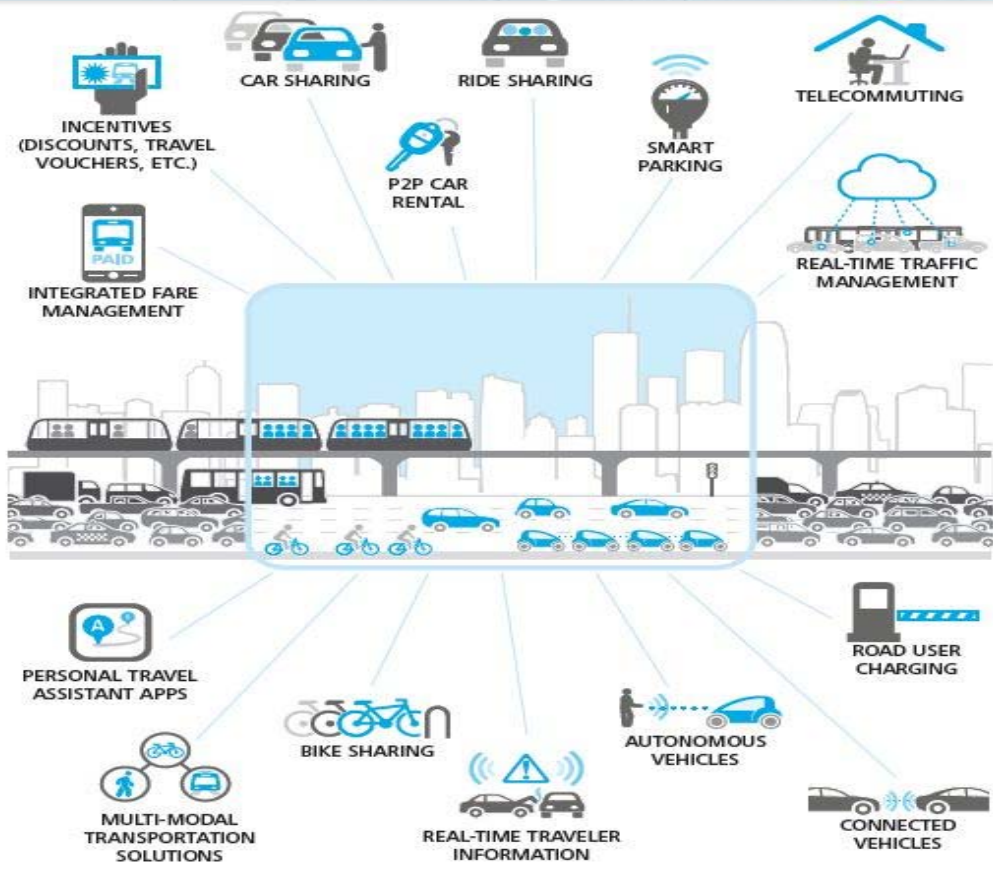
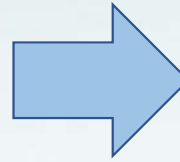


Image source: le.com



## STARNET: Purpose

To enable sharing of real-time data and live video pertaining to the operation of roadways and public transit, between computers and people involved in

- Transportation operations and
- Emergency response
- Thereby assisting in
  - the coordination of their activities and
  - providing the public with a regionally focused source of comprehensive information about current travel conditions and options.
- Provide improved integration of operation procedures,
- Facilitate improved emergency response.



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## Theme #1

- How is STARNET used today and what do you like about it?
- Points to consider:
  - Data/content available on STARNET today
  - Instances STARNET was used to manage an incidence/emergency?
  - Useful aspects of STARNET
  - Data/contents available on STARNET today



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## Theme #2

- What are pain-points of STARNET?
- Points to consider
  - How is critical data exchanged during emergencies (With or w/o STARNET)
  - Components of STARNET are/were deficient or difficult to use
  - Additional systems/data/processes to make STARNET more useful



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## Theme # 3

- Managing incidents and emergencies in 2025
  - Vision for Role of STARNET in managing response, communication, stakeholder participation, control, critical data flow, etc.?
  - Traffic incidents and emergencies
  - Transit incidents and emergencies
  - Natural Disasters
  - Connected/Autonomous Vehicles
  - Shared mobility
  - Data exchange and sharing [types, size, complexity, granularity and frequency of data collected, integrated, processed and exchanged]





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