



# Move Utah

ACTIVE, HEALTHY, CONNECTED COMMUNITIES

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What the Health? How innovative mobility solutions will impact active, healthy, connected communities

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# SUMMIT FRIENDS



LOUIS ALLORO  
CHAMPION OF CHANGE





# SPEAKERS



**Blaine Leonard**  
UDOT



**Shaina Quinn**  
UTA



**Clint Harper**  
NASA





# Move Utah What the Health?

Shaina Quinn

Program Manager, Innovative Mobility Solutions

Utah Transit Authority





# Background : Public transportation IS active transportation



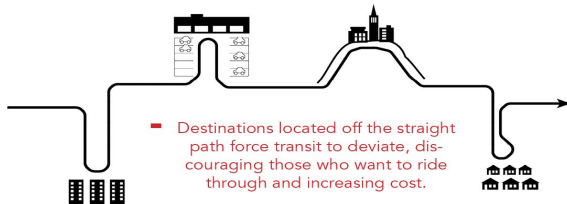
+ Many people and jobs are within walking distance of transit.



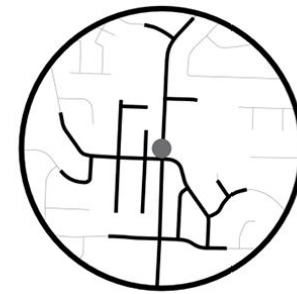
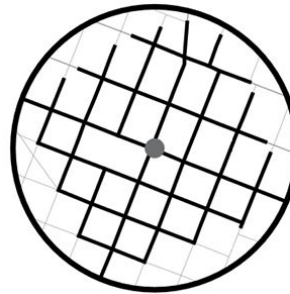
+ Short distances between many destinations are faster and cheaper to serve.



+ A logical transit line is a direct path between any two destinations on it.

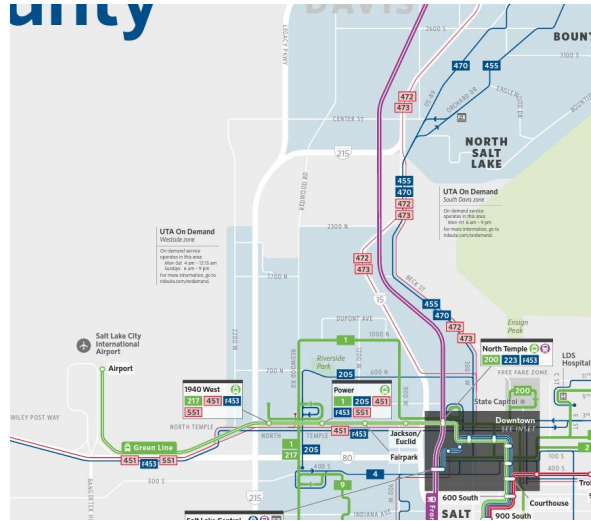


- Destinations located off the straight path force transit to deviate, discouraging those who want to ride through and increasing cost.



# 2030 UTA Strategic Plan : Better Quality of Life

- **More access:** close to where 75% of people live
- **Clean air:** electric and other zero emission vehicles

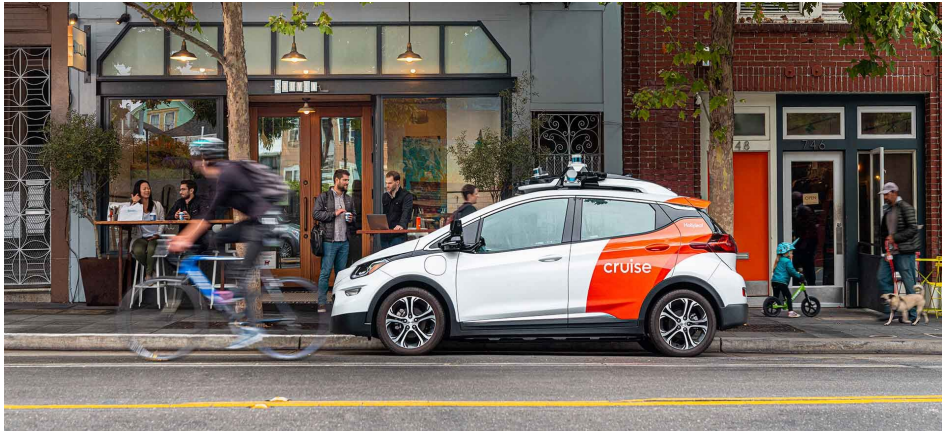




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A close-up of a white car with 'Haló' branding in large blue letters on the side.

 Ride UTA  
August 11

The #AVShuttle is back at The University of Utah. This driverless vehicle operates Monday – Friday from 9 a.m. to 3 p.m. Take a spin on the #AVShuttle and visit [www.avshuttleutah.com](http://www.avshuttleutah.com) for more info and to give us your feedback. Due to COVID, additional safety measures are being taken, masks are required and limit 4 passengers. @UtahDOT @utahtransportation



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# 2030 UTA Strategic Plan : Exceeding Customer Expectations





# Summary

1. Land use that benefits transit is healthy
2. UTA is innovating for better quality of life and rider experiences





# What the Health?

Improving Traveler Safety and Efficiency  
with Connected Vehicles



Blaine D Leonard, P.E., D.GE, F.ASCE  
Transportation Technology Engineer  
Utah Department of Transportation



# Connected Vehicle Deployments

(vehicles talking to the infrastructure)

## Benefits:

- Improved **Safety** / Fewer Crashes (long term)
  - Information & warnings to the driver / system
  - Attention to vulnerable road users
  - More efficient snow & ice removal
  - **Synergy** with automated vehicles / redundancy
- More efficient transit operations (short term / day one)



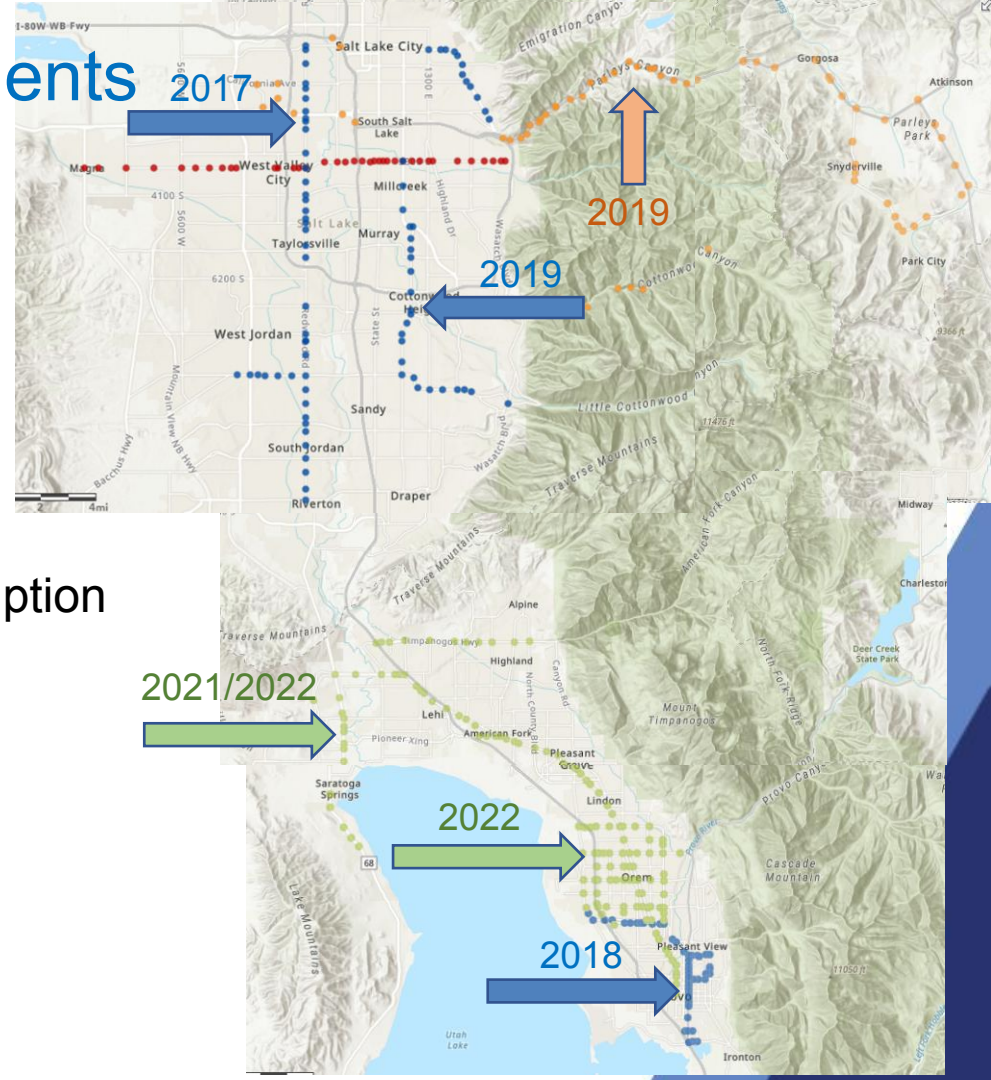
# Connected Vehicle Deployments

## Current Deployment:

- 338 Roadside Units
- 271 Equipped Vehicles

## Applications:

- Transit Signal Priority
- Snowplow / Emergency Vehicle Preemption
- Vehicle Insights (weather / crash)
- Spot Weather Impact Warning
- Curve Speed Warning



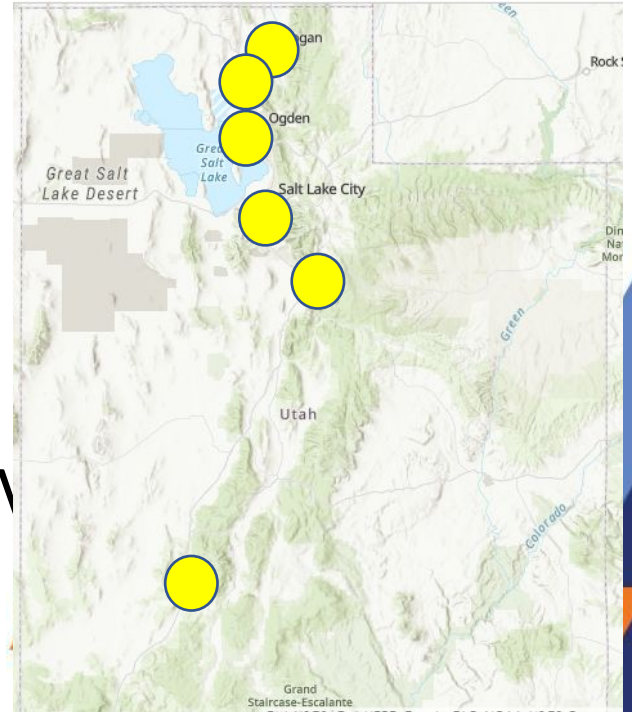
# Connected Vehicle Deployments – 2023/2024

## Applications under development:

- Rural applications – intersection warning, variable speed limit
- Intersection safety – Bike/Ped warning
- Air Quality measurement / mitigation

## Deployments

- 156 RSUs
- 317 OBUs
  - Buses, Plows, Freight Trucks, Fleet V





# Using LiDAR for Vulnerable Road User Detection

LiDAR shows promise for:

- Precise detection of Vulnerable Road Users
- Analytics (AI/ML) for near miss evaluation

Evaluation Locations:

- 600 N 300 W SLC
- 2011 S Redwood Road

Connected Vehicle goal:

- Send message warning of VRU presence / location to drivers
- Prevent crashes

