Today's roads face persistent and compounding challenges...

Safety

~40,000

U.S. road fatalities in 2023, representing a ~25% 10-year increase¹

Efficiency

21.4%

10-year increase in U.S. congestion²

mand they must adapt to meet the growing demand for next-generation connected and automated vehicles (CAVs).

74%

2045

2040

Autonomy

% U.S. Connected & Automated Vehicle (CAV) Penetration¹

20%

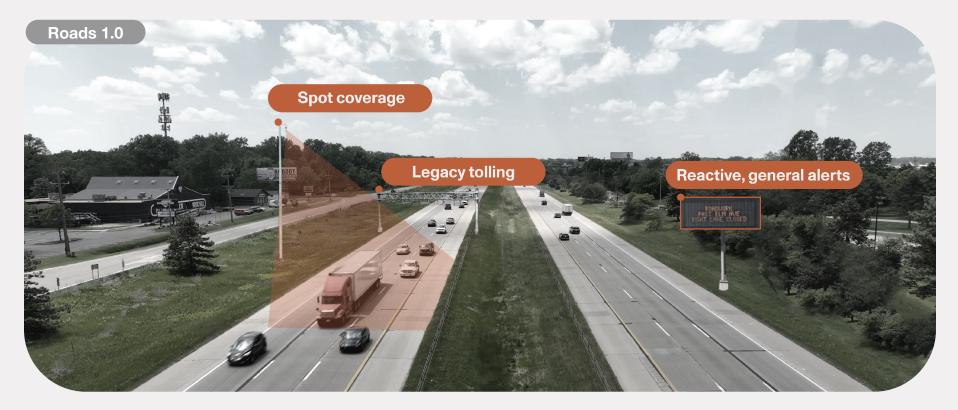
2030

10%

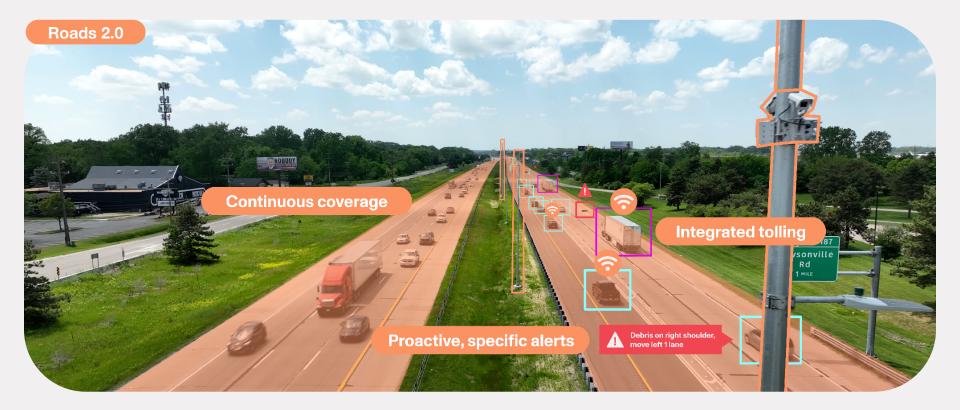
2025

(1) Based on a minimum feature set of adaptive cruise control, lane keep assist, automatic emergency braking, and 4G connectivity. Uses multiple S&P forecasts extending to between 2028-2032. We then extrapolate vehicle demand, retirements, and tech features in new vehicle sales based on historic trends. S&P Global Mobility independently reviewed this model, finding the assumptions and methodology to be logically sound and consistent with available benchmarks.

Traditional solutions are constrained by sparse deployment of technology and limited coverage.



Smart Roads enable the safe, efficient, and automated transportation of goods and people.



Smart Roads address these problems through full coverage, seamless integration with vehicles, and predictive insights.

Smart Roads

Lane-level fidelity, real-time awareness

Highest value service with continuous coverage to mitigate crash risk and nonrecurring congestion on priority corridors

Automated detection of:

- Traffic flow
- Incidents
- Road hazards
- Road surface condition
- Vulnerable road users
- vuinerable road users
- Hazardous vehicle behavior
- Vehicle classification
- Weather condition

Dynamic drive guidance for:

- Hazard alerts
- Lane change
- Speed change

Managed Smart Roads

Integrated tolling for demand management

A smart road with demand management strategies to address congestion and accelerate benefits of advanced vehicles

Digital implementation of:

- Pricing Demand Management
- Vehicle Eligibility Demand Management
- Cooperative Adaptive Cruise Control



We envision a Tiered Roadways construct

Tiered Roadways Overview

With rapidly expanding connected infrastructure, Cavnue is leading the charge in providing a premium driving experience on fully enhanced roadways (and could partner to enable all connected roadways).

- . Standardized incident data feed
- Variable coverage of traffic flow monitoring, automated incident detection and roadside message signs

information available through third party apps



Only general traveler

Traditional Roads

Unconnected

- 3
- ITS-equipped Roads
- Connected

- . Tier 3 capabilities
- 2. Extended to full, continuous coverage of roadway
- 3. Lane-level accuracy to support precise in-vehicle speed and lane change guidance



Advanced Roadway Operations

Enhanced

- Tier 2 capabilities
- 2. Tier 3 capabilities
- . Automated, integrated tolling technology
- 4. Dynamic lane operations



Next Generation Managed Roads

Enhanced Plus

Connected Roadway Capabilities

America's leading smart road developer / operator

