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Digital Twin Hub – Gemini Call

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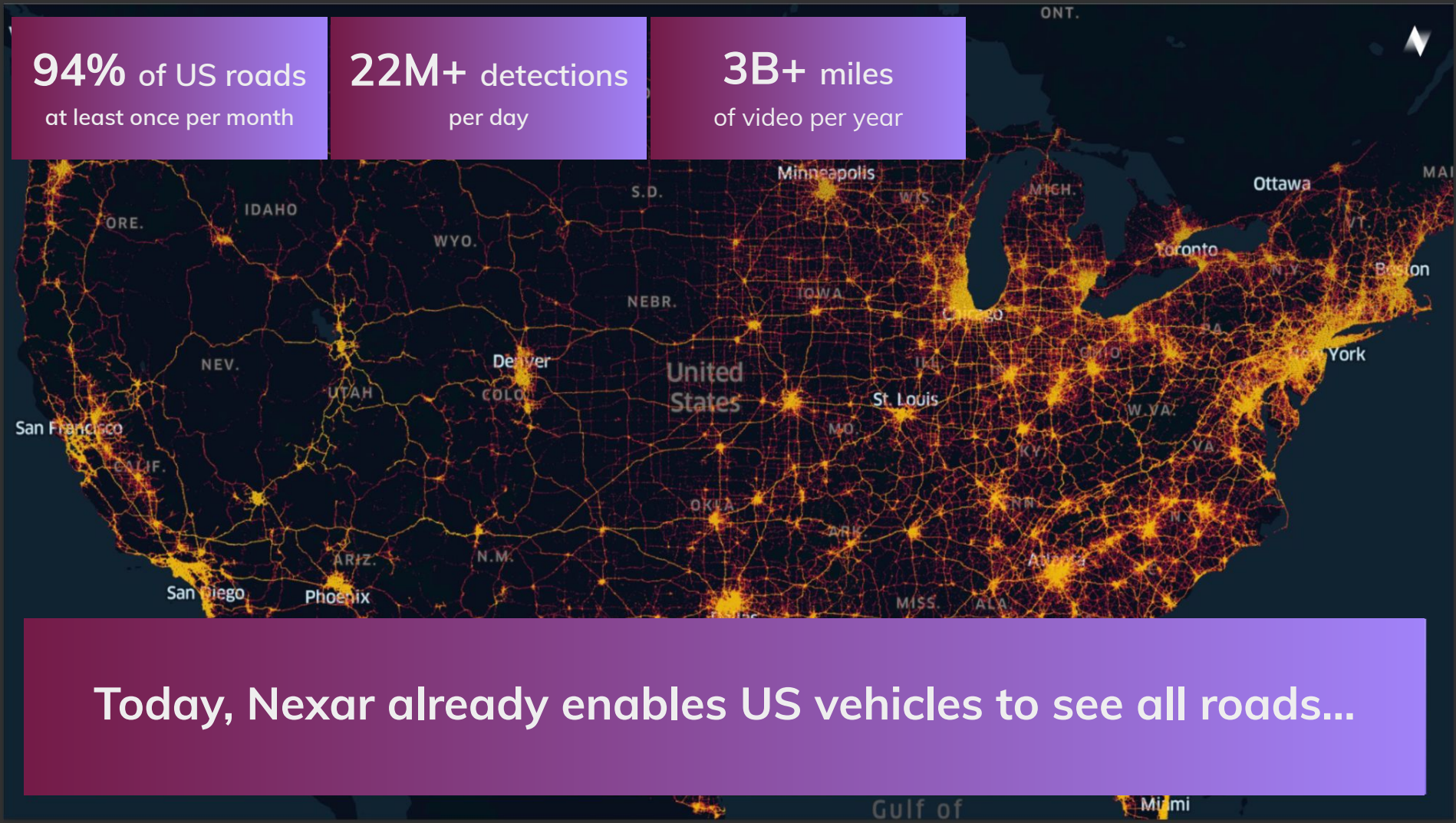
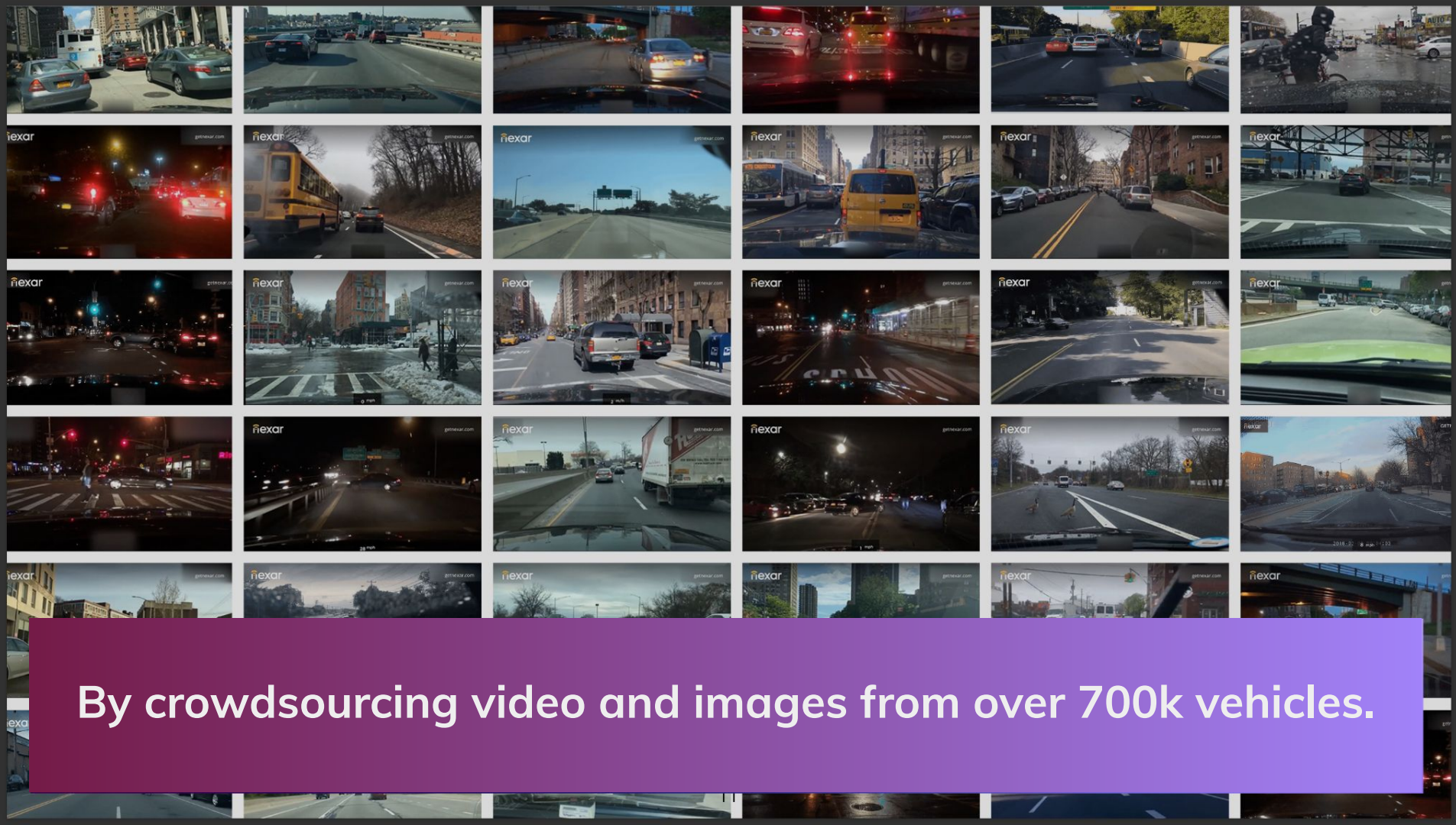
94% of US roads
at least once per month

22M+ detections
per day

3B+ miles
of video per year



Today, Nexar already enables US vehicles to see all roads...

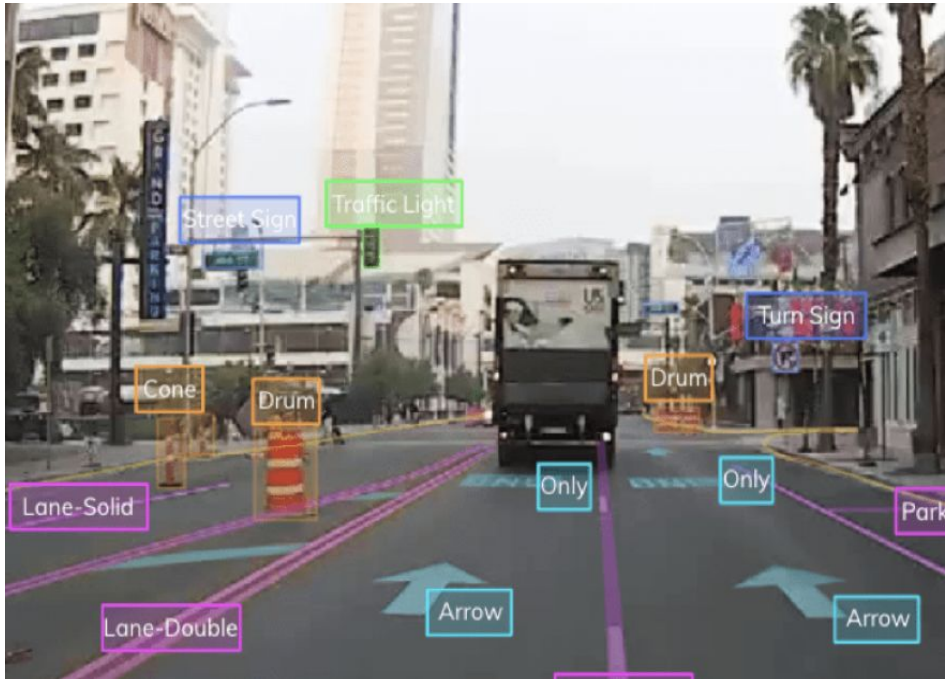

By crowdsourcing video and images from over 700k vehicles.

A digital twin of our roads, to better understand the world, today.

Nexar's vision network sees the world just like people do, at a higher frequency.

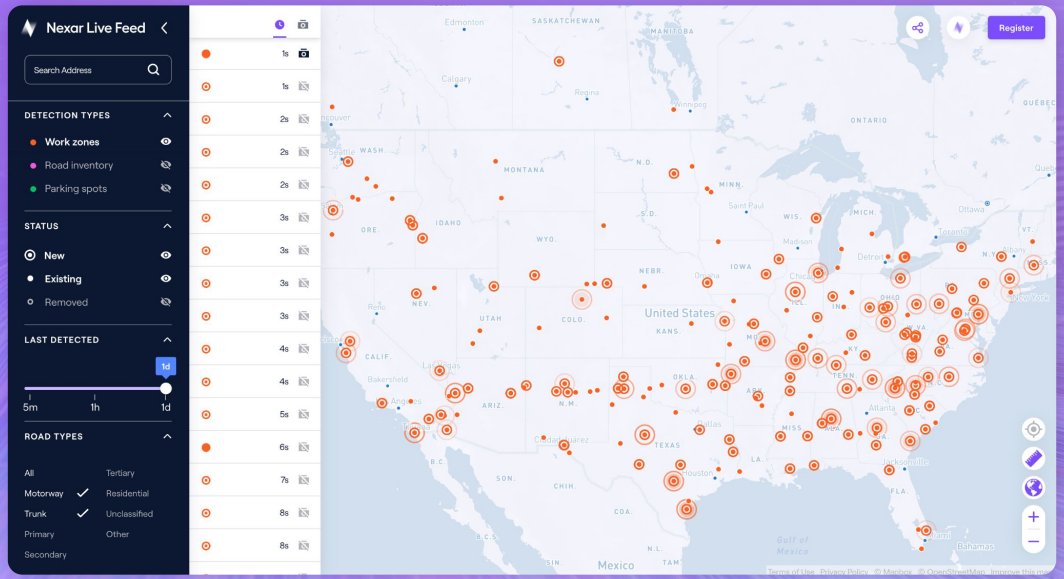
Our AI can deliver the detections, context and fresh insights you need from the road.

Connected Cars | Smart Cities | Autonomous Vehicles



CityStream Live

DEMO

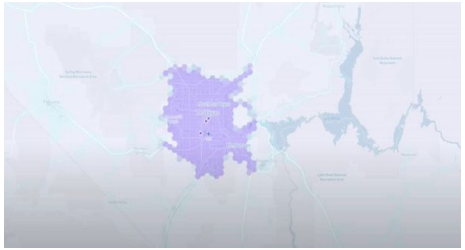


Mapping at the Speed of Life

From mapping roads once a year, to mapping the roads every minute.

Real-Time Work Zone Management

Road Inventory Change Detection



Virtual Camera

Open Curb Side Detection

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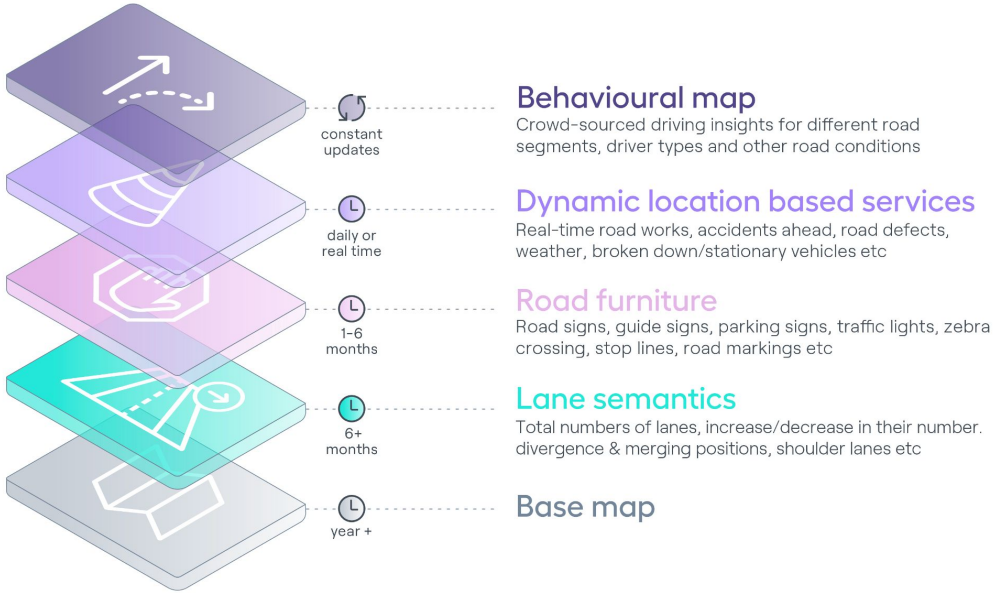
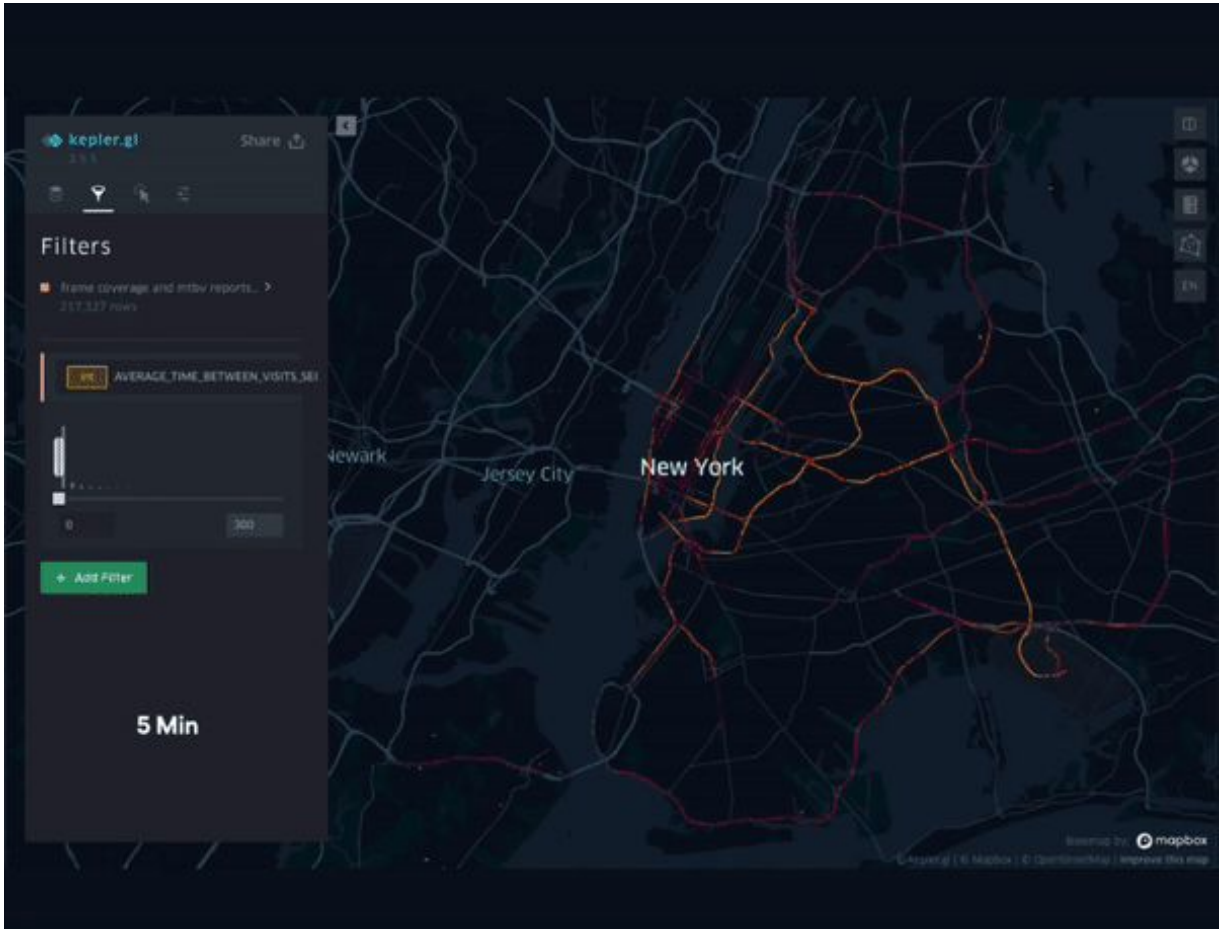
Building the New Mapping Stack

Enriching existing map layers with vehicle behavioral maps to humanize AV driving



Predictable coverage

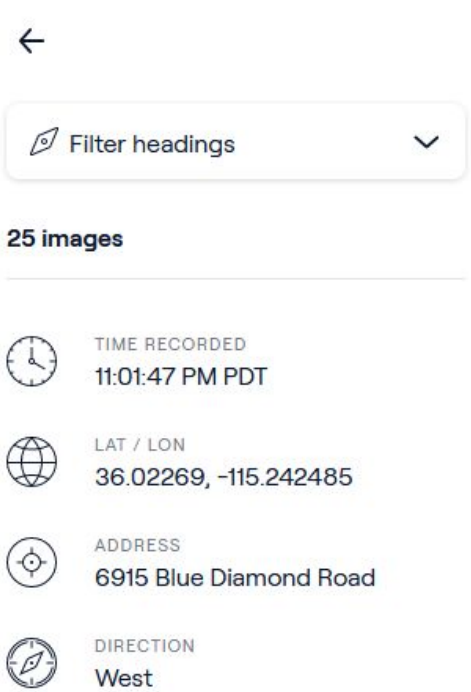
We measure the Mean-Time Between Visits for every road segment

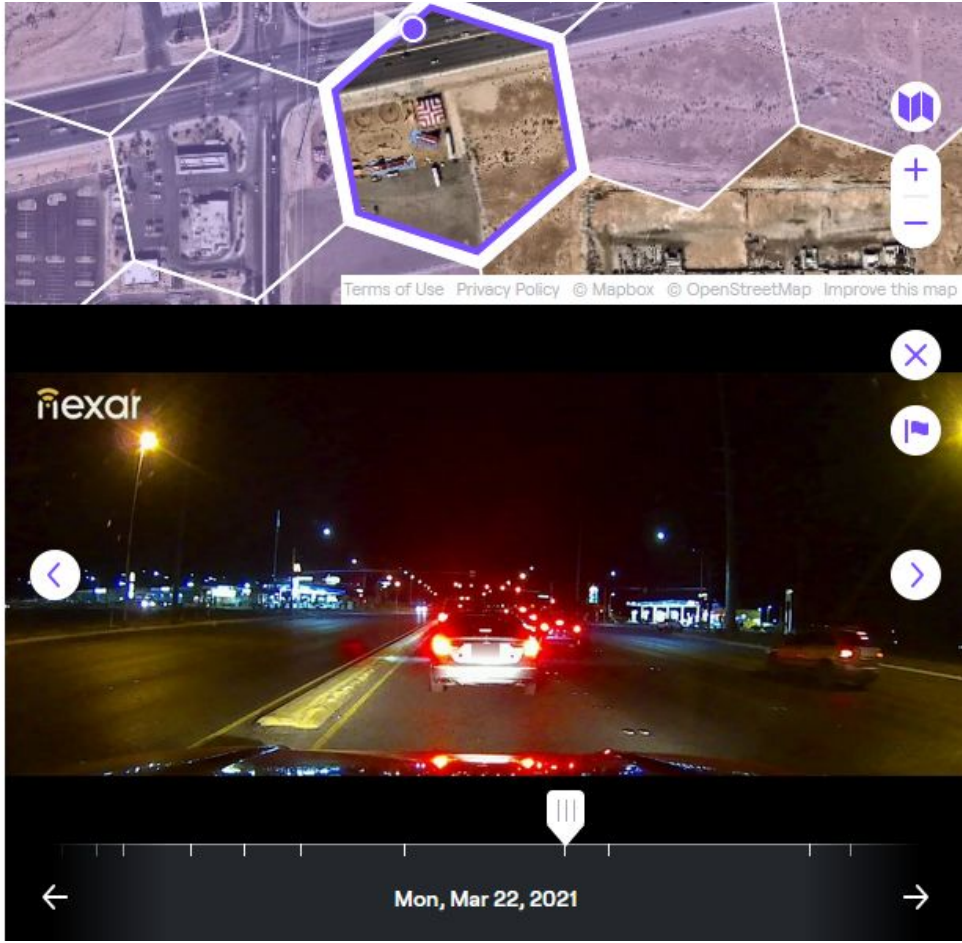


Nexar VirtualCam

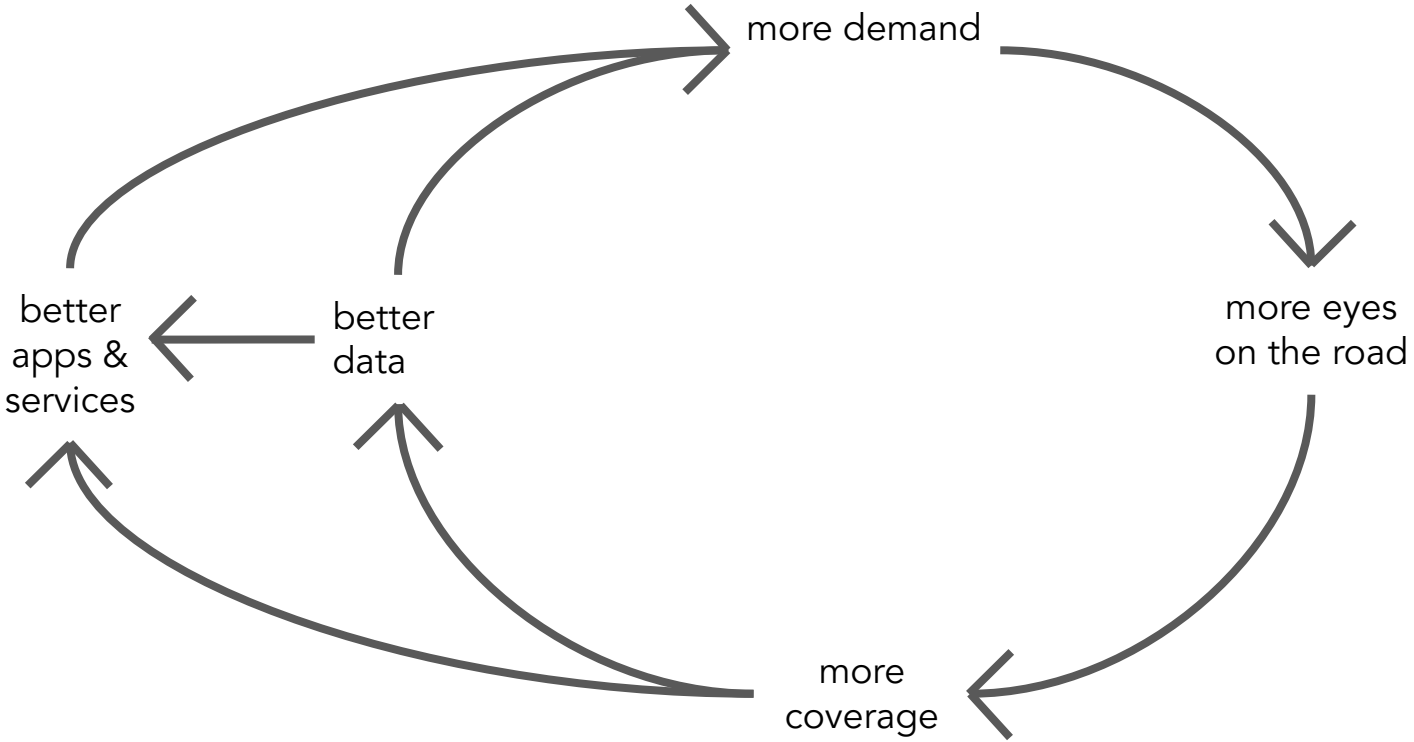
Fresh images when and where you need them

Easy verification with visual evidence

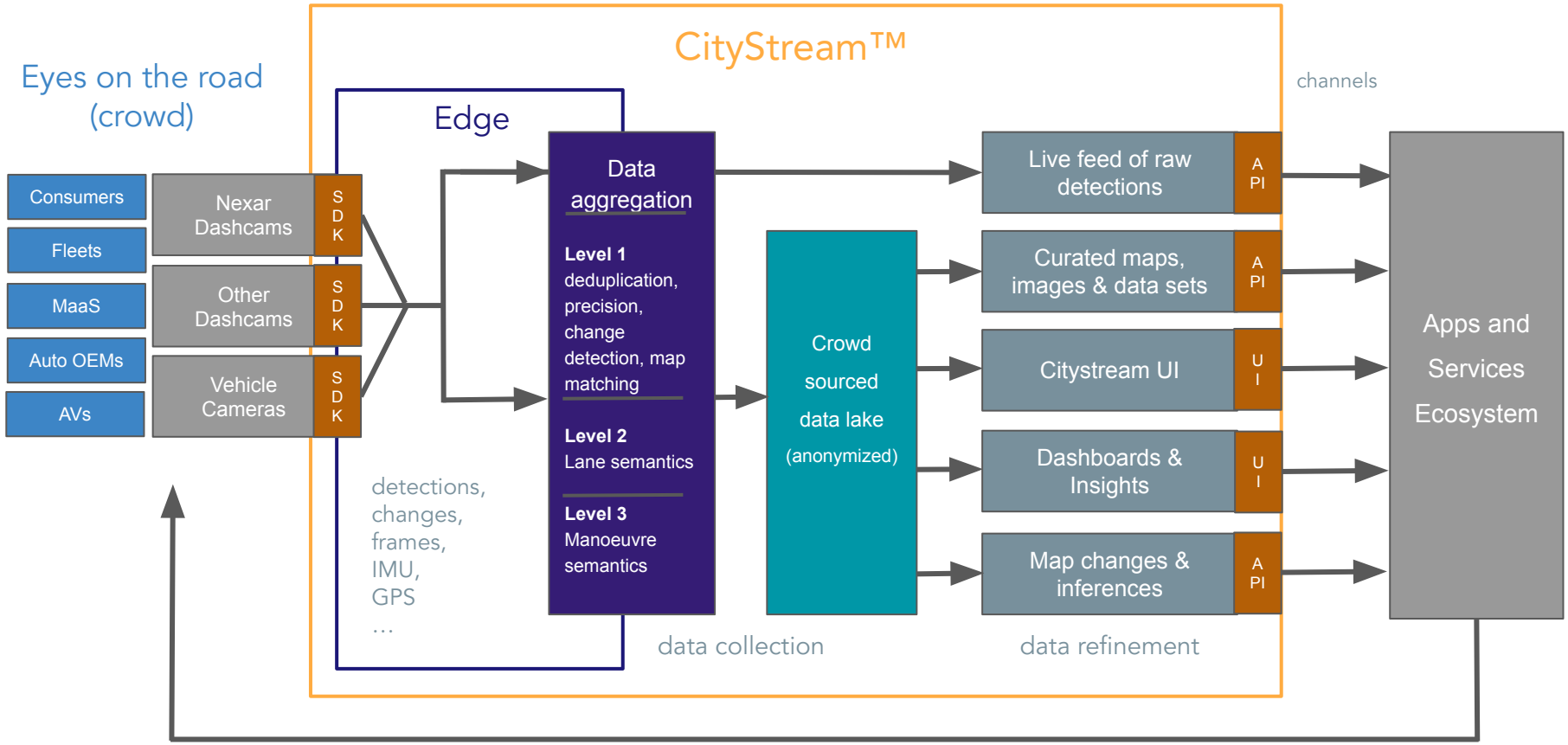




The Flywheel — build on strong network effects



Nexar CityStream: the real-time mapping (RTM) platform for crowdsourced vision of the world's roads



Nexar Edge SDK is a single kit that runs at the edge

NEXAR EDGE SDK

Fleet Services
Remote Streaming, Tracking

Data Library
Anonymised frames and videos

Safety
FNOL, collision reconstruction

Vision AI
Edge detections, SD/HD Maps

Smart Connectivity
Managed Wi-Fi and 4G/LTE, Data Management, Security, MVNO

DASHCAMS & DVRs

AUTO OEM HEAD UNITS AND GATEWAYS

FLEET TRACKING SYSTEMS

The Nexagons Standard

An IETF standard model to breakdown street complexity to tiles/feeds

Creating portable nodes, where each node aggregates vision & sensory data, and generates geo-spatial feeds

Bring compute to the edge to reduce transferring data to the cloud

On-demand shared memory delivered as feed to apps

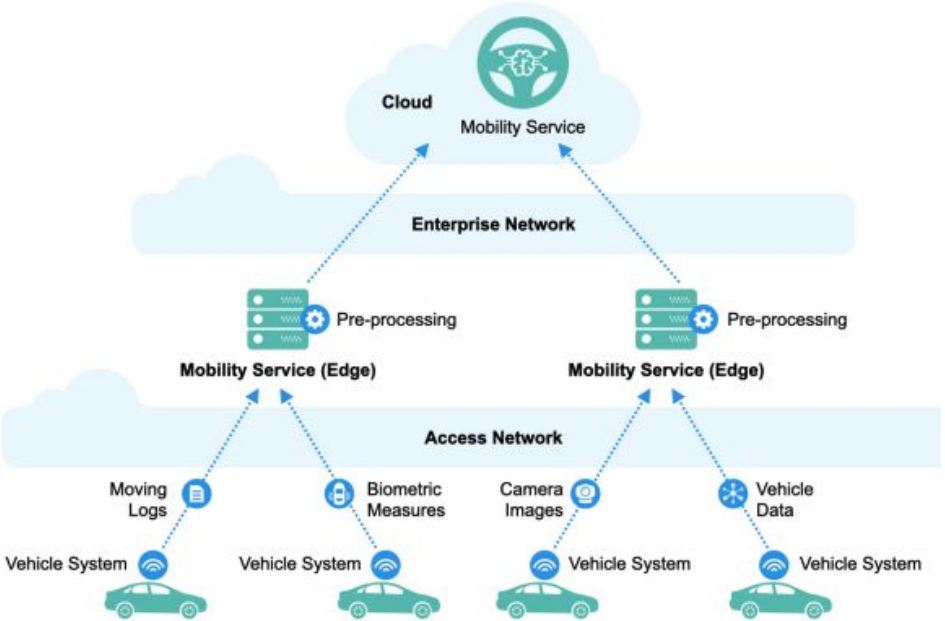


Figure 2: Connected vehicles

Case Study

Nexar vs. traditional mapping of road signs in Phoenix (4,850 miles)

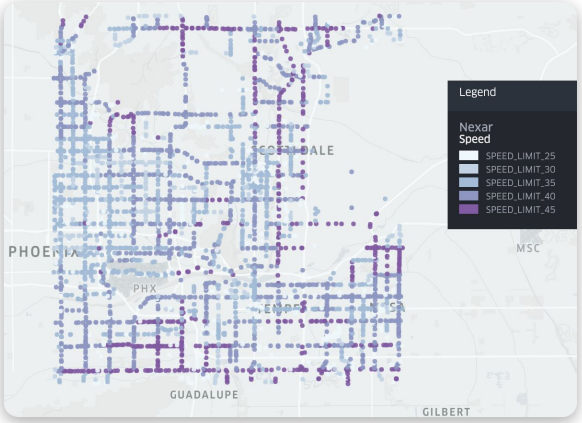
Nexar's Network vs OSM

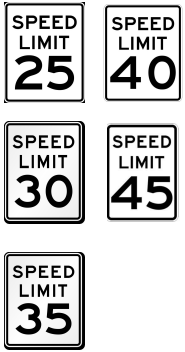
- **30 days** of data collection
- **34,444 hours** of driving collected
- **±500K miles mapped**
  ~ 100 visits per mile per month

53% of Nexar's detections of 3,562 speed limit signs did **not** exist in OSM or existed but **had changed.**

Nexar's Network vs Phoenix Data

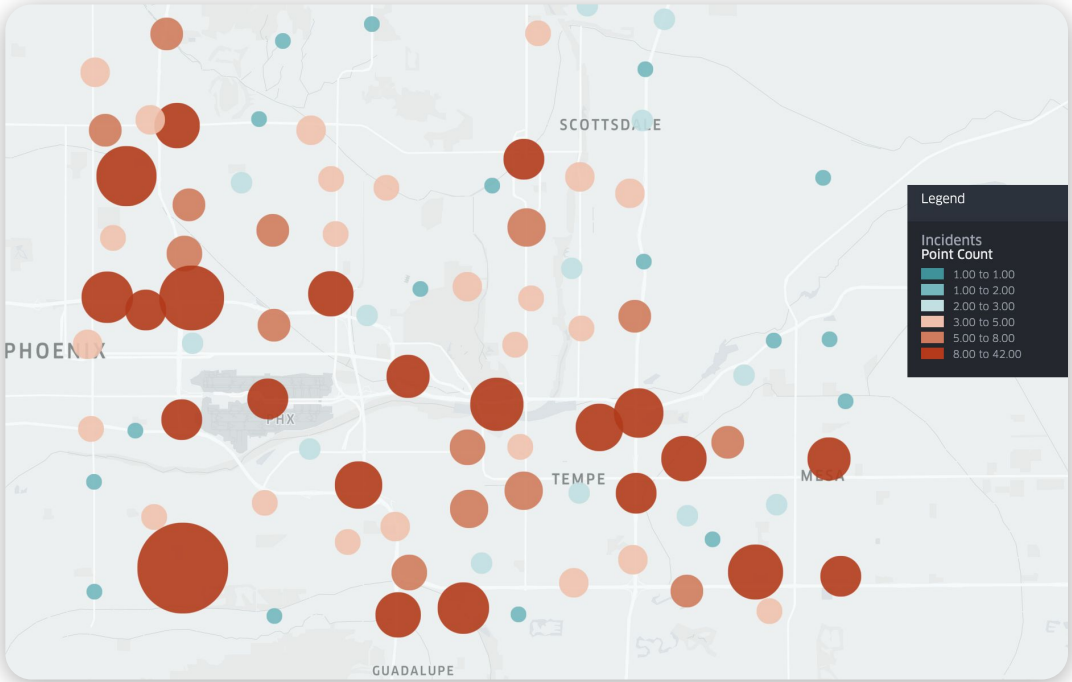
6% of Phoenix Data wasn't reflected in the field (missing signs or wrong signs in database)

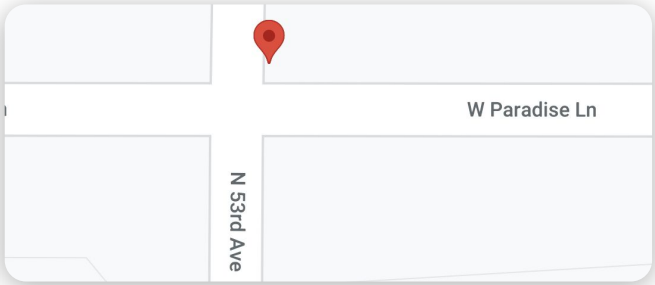




Case Study | Hard Brakes in Phoenix

Drilling into safety issues with visual ground truth (a bumpy road)

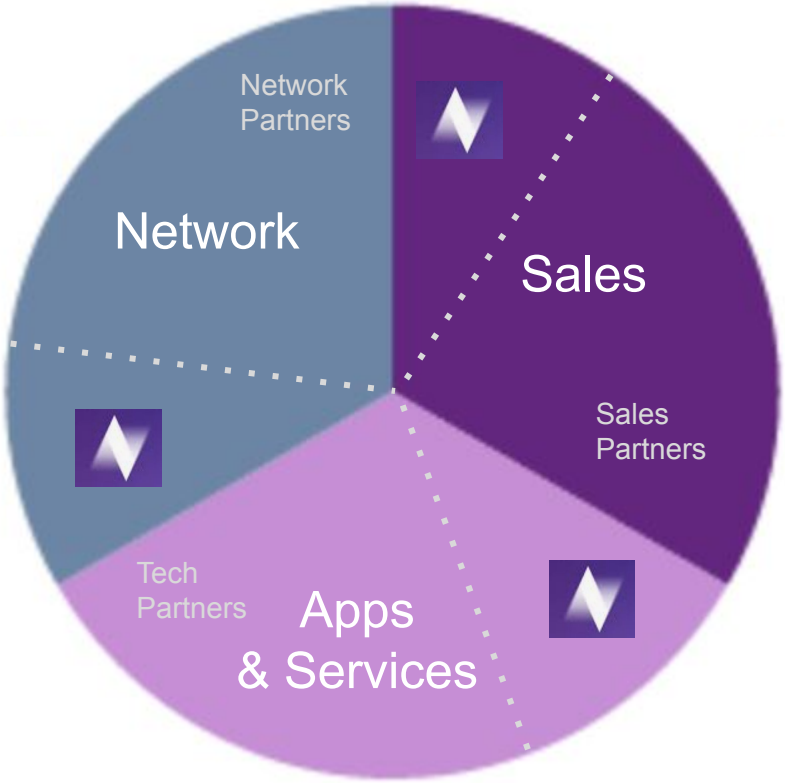




It is useful to build a taxonomy for selecting what is best for their specific use cases

MODALITY	OBJECT/EVENT	TIME FRAME	LOCATION	INTERFACE
☐ Detections	☐ Road inventory	☐ Historical	☐ Specific locations	☐ API
☐ Change detections / aggregation	☐ Traffic lights	☐ Given time period	☐ Specific regions / cities	☐ Data set
☐ Images	☐ Road conditions	☐ Real-time	☐ Europe	☐ UI
☐ Training videos	☐ Collisions		☐ USA	
☐ Collision reconstructions	☐ Parking spots		☐ Japan	
☐ 3D point clouds	☐ Work zones		☐ South East Asia	

Nexar is open to different business models to grow the market



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Thank you.