

# Mapping Vehicle Connectivity

THE DRIVING FORCE BEHIND AUTOMOTIVE INNOVATION



## PHASE 1

### Connecting the Car

The first phase of the connected car was establishing wireless connectivity to link cars to call centers for features like automatic crash notification, road-side assistance, and concierge services. Additionally, Bluetooth enabled useful wireless features like hands free calling, and streaming content integration with compatible car stereo systems.

#### TIMELINE

- 1996 OnStar introduces first connected vehicle service
- 2001 First Bluetooth integration into production cars
- 2007 First fleet-wide deployment of speech recognition

**75%** OF VEHICLES PRODUCED BY 2022 WILL BE CONNECTED<sup>1</sup>



## PHASE 2

### Arrival of Infotainment

The second phase of connected car was infotainment, which was powered by the introduction of smartphones and the rapid consumer adoption of mobile apps. Through this technology integration, automakers began to deliver connected user experiences that extended consumers' digital lifestyles into their vehicles. Soon thereafter, vehicles became equipped with more sophisticated entertainment systems sporting touch screens and colorful interfaces for enhanced features and usability.

#### TIMELINE

- 2007 Ford deploys Sync infotainment service
- 2010 All major automakers deploy infotainment systems
- 2014-15 Apple and Google infotainment systems rollout



**More than 70%** of younger Millennials cite technology and infotainment features as “must-haves” when purchasing a car<sup>2</sup>



**More than half** of all consumers indicate they already have at least one vehicle equipped with an infotainment or navigation system<sup>3</sup>



**Nearly all consumers** familiar with infotainment systems cite interest in having one included in their next new vehicle purchase<sup>4</sup>

## PHASE 3

### Software & Data

Connected car phase three, the phase we're currently in, introduces driving centric features and services powered by software, data, analytics, and over-the-air (OTA) transmission of software updates and data between the vehicle and the cloud. OTA will also establish a fundamental foundation for continued improvements in advanced driver assistance systems (ADAS), vehicle-to-everything (V2X), and eventually autonomous driving.

#### TIMELINE

- 2009-17 Transportation diversifies to include software reliant, on-demand mobility services
- 2019 Vehicle-wide software updates and data collection deployments accelerate
- 2022 203 million vehicles on the road enabled for OTA software updates and data collection<sup>5</sup>

By 2030 data and mobility services are predicted to generate

**\$1.5 TRILLION** IN REVENUE<sup>6</sup>



Global cost savings for mitigating software recalls and cyber security threats forecasted to increase from

2015 **\$2.7 BILLION** → 2022 **\$35 BILLION**<sup>7</sup>

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