



# The 5G edge computing value opportunity



## Intelligent Transportation

With COVID-19 the need for organizations to be digital has never been greater, and 5G along with edge computing will likely play a key role in the global economic recovery.

Analysis from KPMG and global market intelligence firm IDC took a look across five sectors – industrial manufacturing, connected healthcare, intelligent transportation, environmental monitoring, and gaming. The research estimates that by 2023, with an uptick in the adoption of 5G and edge computing, the five target industries are forecast to drive US\$517 billion in annual revenue into the entire ecosystem that includes connectivity, hardware, software and services.

Here we delve deeper into the intelligent transportation ecosystem and market opportunity.

Intelligent transportation is vital for smart cities. Vehicle to infrastructure (V2I) and Vehicle to Vehicle (V2V) connections will be key enablers. Data from sensors can tell transit operators and passengers about performance and problems. Out on the streets, traffic management is made easier with real-time updates of roadworks and accidents, which in turn informs travelers. Parking also becomes less of a hassle with instant identification of free spaces. Autonomous Delivery bots will dynamically interact with a variety of public and private infrastructure including roads, mailboxes, and charging stations.

Consequently, travelers enjoy a vastly improved experience, with fewer delays, faster journeys and safer public transport. Consumers will benefit from the convenience and time savings of Autonomous Delivery. All of which makes for more pleasant cities.

### The 5G+Edge technology opportunity



#### IoT devices

The large volume of sensors and devices along roadways and in parking systems requires 5G's massive density. Improved latency, higher network capacity and elimination of poor coverage means faster, more accurate insights. This translates into better performance, smoother transit and traffic flow, and fewer accidents.



#### Transportation software vendors

A host of applications cover logistics, inventory, smart vehicles, toll and ticketing, smart parking, fleet telematics and navigation. These produce enormous amounts of data, and operators need the power of 5G+Edge to manage connected transit and traffic systems as well as reduce human intervention.



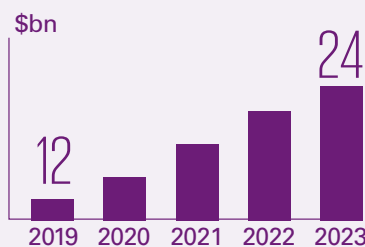
#### Analytics and Big data software vendors

Data gathered from multiple transportation sub-systems and external sources will be critical to providing transportation estimates, accident reports, and other critical information. With 5G+Edge it will be possible to execute advanced rules, dynamically schedule vehicles, and prevent failures and risks.



#### System integration

5G and edge computing ensure reliable data collection from multiple sources, helping transportation companies introduce new services with sophisticated pricing models.



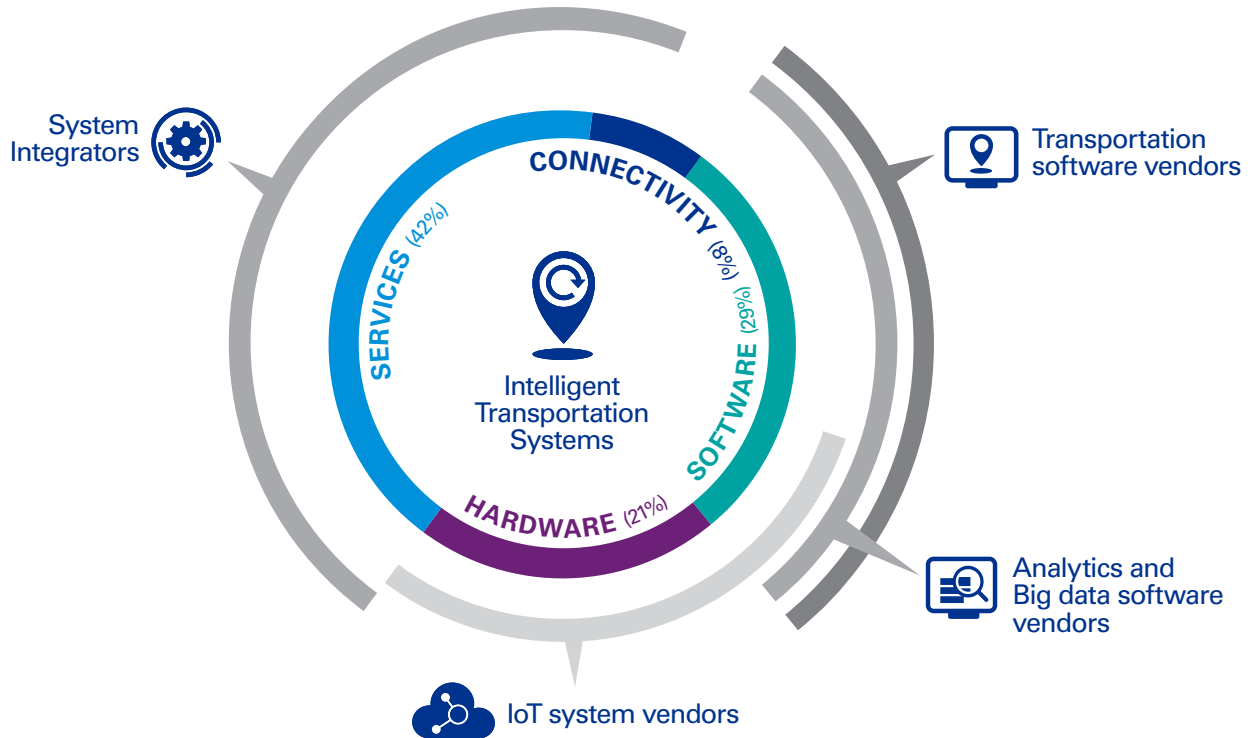
Between 2019-2023 the intelligent transportation market is set to double in value.

This presents an ecosystem opportunity of **US\$24bn**

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# 5G+Edge technologies across the ecosystem

Each of these technologies is enabled by one or more ecosystem players, as shown here:



## Next Steps

Telcos have an opportunity with 5G and edge computing to look beyond connectivity and consider moving into services, selling cloud infrastructure, installation, integration, app development, device management and data management. Specifically, some of the relevant opportunities are:

- Deliver connectivity throughout a geographic area, across solutions
- Offer design services, devices, device management, data management, edge computing, analytics, and integration for the central control centers
- Enable critical services such as automated public transit and traffic management

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