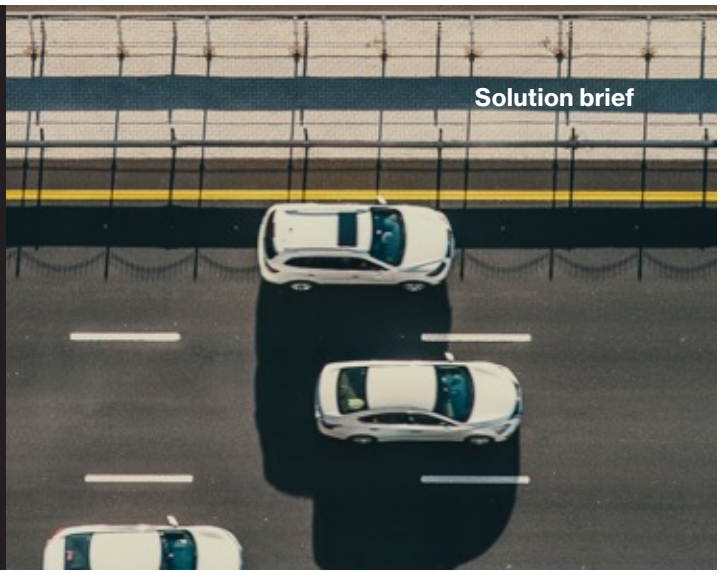
Your vehicular data on your terms

Verizon's ThingSpace Quality of Service API enables connected vehicle applications to change the priority of their data in near real-time.



In a world where connectivity drives today's vehicles, having the right connection can make all the difference. With vehicular data on the rise, determining the data priority of different tasks is crucial. With the ThingSpace Quality of Service (QoS) API, you can get near-real-time control over your data priority and can set data priority by application. The result: better application performance and reduced costs, where safety comes first.

As connected vehicle applications increase, they create and process more and more data. This data needs to be prioritized almost instantaneously based on the application and use case.

Through the ThingSpace QoS API, you can change your data priority in near real time without service interruption, a device reset or a network disconnection. ThingSpace is application programming interface (API) based and developer friendly. The data priority for each connection, application and server can be adjusted separately with ease. A data priority change on the ThingSpace QoS API is designed to be fast, simple and seamless.

Levels of service that match levels of need

Depending on whether you're updating a vehicle's operating system overnight or responding to a vehicle safety issue, you may need different data quality. Standard and Premium data services from Verizon help meet your demands in the moment.

Standard service

With Standard service, you can expect performance almost on par with the Premium offering when there's no congestion. Greater congestion deprioritizes this level of service.

Standard service is designed for:

- Software downloads
- Head unit apps and entertainment
- Non-critical sensor data uploads

Premium service

Premium service connections do not get deprioritized during congestion. You can expect higher effective performance and data speed during congestion compared to Standard plans.

Premium service is designed for:

- Remote operations
- Telematics data uploads
- Critical firmware downloads
- Safety-related sensor data

How the ThingSpace QoS API works

With the QoS API, you can set your data priority for your connected vehicle's applications almost instantly.

Make a request. An autonomous vehicle encounters a new scenario, the system detects the need for higher connectivity and then asks to upgrade to Premium QoS data for the line through the ThingSpace QoS API.

Upgrade on the go. ThingSpace makes a request to the Verizon wireless network so the remote driver can get video and other relevant data from the vehicle in near real time.

Back to standard data. After the situation becomes routine again, the remote driver can return control to the autonomous vehicle with Standard QoS data communication.

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Get the flexibility you've been missing on the network you trust.

Verizon offers the ThingSpace QoS API as a developer tool to integrate with back-end services for near-real-time network control of data priority. A single device can speak to multiple applications and multiple services, potentially each at a different QoS level. No changes are required to devices to use the service, minimizing the need for firmware over-the-air. The new QoS levels introduced should be compatible with the Standard ThingSpace control interface.

ThingSpace Quality of Service API is available for 5G and 4G LTE architectures and is backward compatible.

Why Verizon?

Verizon is the most awarded brand for Wireless Network Quality and America's most reliable 5G network.[1, 2] Our network has massive fiber and small-cell deployments for reliability and performance. From 5G Ultra Wideband to 4G LTE, our coverage reaches nearly everywhere across the country and offers 99.97% system uptime.

To learn more about how ThingSpace QoS API can help keep your vehicle's connectivity at the service level you demand, contact your Verizon Account Manager or visit thingspace.verizon.com

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1. Verizon received the highest number of awards in network quality for the 25th time as compared to all other brands in the J.D. Power 2003-2020 Volume 1 and 2 U.S. Wireless Network Quality Performance Studies. Network Quality measures customers' satisfaction with their network performance with wireless carriers. For J.D. Power 2020 award information, visit jdpower.com/awards.
2. **Most reliable 5G network based on more first place rankings in RootMetrics® 5G data reliability assessments of 125 metro markets conducted in 2H 2022. Tested with best commercially available smartphones on three national mobile networks across all available network types. Your experiences may vary. RootMetrics rankings are not an endorsement of Verizon.**