



Telia Smart Transport

# VEHICLE CLIMATE MANAGEMENT: REDUCE BOTH YOUR HEATING COSTS AND ENVIRONMENTAL IMPACT



Automate your vehicles heating system and take control of it. You will not only reduce costs by eliminating unnecessary heating, but also reduce your environmental impact thanks to eliminating cold starts, which is the main cause of harmful vehicle emissions.

## Take control of your costs

Instead of continuously heating the vehicles to ensure that they are warm before usage, you can easily eliminate unnecessary heating by automating and controlling the vehicles heating system. Automating the heating based on when the vehicle is scheduled to run, optimizes the energy consumption, and gives you cost control.

## Configurations in the cloud based portal

Monitor all vehicles temperature and their status in the cloud based portal, and make sure they are within set parameters. The portal is easy to use and lets you configure temperature profile and other parameters – to meet all needs.

## KEY BENEFITS

- Automatic heating based on set parameters
- Configure one vehicle at a time, or apply to groups
- Overview of both heating and battery
- Reduced costs and environmental impact
- Increased comfort for passengers and driver



Telia is the New Generation Telco. With operations in 9 countries and 20.400 employees, Telia is the hub of the digital ecosystems for people, companies and sustainable cities in the world's most connected countries. Our deep industry knowledge, IoT expertise and powerful IoT platform combined with Telias digital infrastructure, results in end-to-end solutions with endless possibilities.



### How does Telia Vehicle Climate Management work?

Vehicle Climate Management is a service that runs on the Telia IoT platform and is connected via Telia IoT Edge; our powerful onboard edge processor and gateway. Telia IoT Edge delivers real-time data to drivers and to the cloud.

A Telia IoT Edge equipped with antenna is installed in the vehicle. Temperature sensors are connected to the device, and together they collect temperature data.

The Telia IoT Edge sends information such as position and temperature via the mobile network to Fältcom's server, where the information becomes available via your internal customer portal.

All parameters, such as profiles for temperature and geofence, are set in the portal. Based on these parameters, the heating is managed automatically, and you can monitor its progress in real time, and see its history.

The vehicles' positions are displayed on a map. This map allows you to create a virtual geographic boundary on an area, so-called geofence. Profiles for geofence and temperature, combined with positioning and other data, provides a vast overview on the heating status, including the vehicles status in relation to its profile, and which vehicles that consume the most energy.



Temperature on board.

Real-time monitoring of all vehicles. Parameters such as temperature and geofence, are set in the portal. Heating is managed automatically.

### CONSOLIDATE YOUR IT SYSTEMS TO ONE OPEN PLATFORM

Telia IoT Edge is an powerful onboard edge processor and communication gateway. It is retrofittable and connects onboard systems and devices to the cloud. This makes it possible to download vehicle data, control, survey, update and configure IT-systems in the vehicle remotely. Telia IoT Edge combines robust, maintenance-free design with reliable and open software and application.

With an open platform, APIs and standards; you can easily integrate your own services – or add third party applications. So you can make the most of whatever the future brings.

### TECHNICAL COMPONENTS

#### Antenna

#### Sensors

Onboard unit	Telia IoT Edge - MIIPS C
Web interface	Vehicle Climate Management portal

