

Digital Car Keys

Turning smartphones into convenient and flexible car keys



Carmakers are leveraging the growth of smartphone adoption and propose new services to access cars using mobile phones. Giving unprecedented convenience, digital car keys are the new essential automotive tool.

A new generation of car keys

Today, smartphones have become a digital “swiss army knife”: they can be used as loyalty cards, credit cards, travel tickets, and more. To provide more convenient and flexible ways to access vehicles, carmakers are dematerializing what used to be a physical car key into our smartphones.

Digital key solutions enable car access and engine start with a mobile device. These phone-as-a-key solutions allow car users to easily share digital keys and to restrict car usage if needed.

Digital car keys also address the constantly growing Mobility-as-a-Service (MaaS) market by simplifying the process of vehicle's pick-up and drop-off for car sharing and car rental services.

Our offer

A secure cloud technology offering

IDEMIA's Digital Car Keys solution

allows carmakers to manage digital keys and secure storage of keys on mobile devices. It includes:

- › A cloud-based server for **key management, provisioning, and distribution**
- › A device agent software component **compatible with iOS and Android mobile devices**
- › **Professional services** to support carmakers integrating the solution within their existing environment.

By being agnostic about the smartphone-to-vehicle communication protocol, IDEMIA's Digital Car Keys solution enables both tap-and-go vehicle access via NFC technology or hands-free vehicle access via Bluetooth (BLE). Moreover, IDEMIA's Digital Car Keys solution ensures a consistent end-user experience, even when the vehicle is out of network coverage.

The latest generation of IDEMIA's Digital Car Keys solution has been designed to be compliant with Car Connectivity Consortium (CCC) architecture.

Benefits



Unlock new use cases

Digital car keys allow car users to access a vehicle using their smartphone and share digital keys with customized authorizations.



Enable customized experience

A digital car key can be associated with a driver's profile to activate customized settings before getting into the car.



Sustain MaaS growth

Car rental and car sharing companies can remotely manage access to their fleet of cars providing a simplified experience to customers.

Why IDEMIA?

We have years of experience in delivering secure digital solutions that involve management of critical and sensitive information to enterprises, financial institutions, and governments.

Our cloud-first approach allows carmakers to scale the solution effectively.

We have already deployed worldwide digital car key solutions for major carmakers.

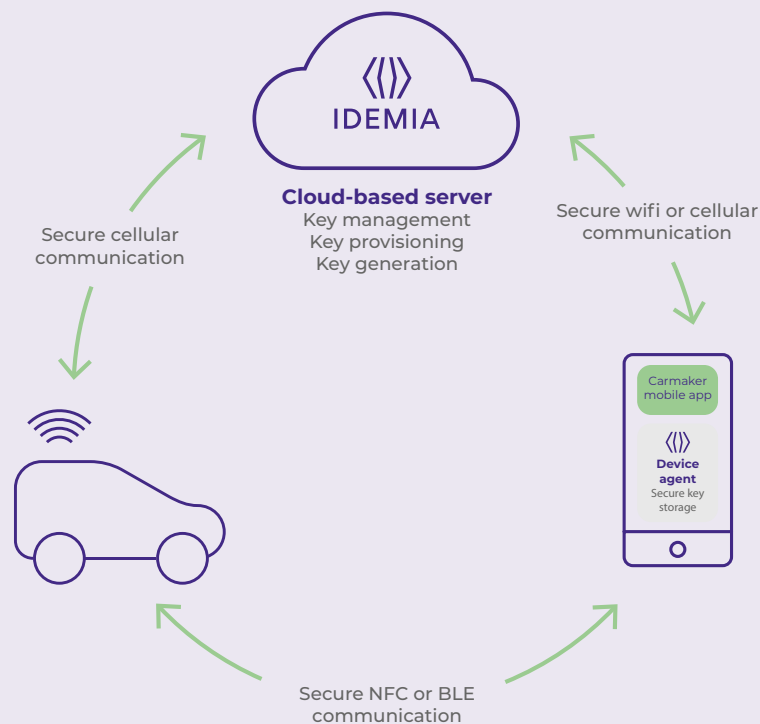
How it works?

A simplified user experience

Thanks to digital car keys, carmakers can provide drivers with an easy and personalized experience.

Once drivers pair their smartphone with a car, they can lock and unlock the vehicle as well as start the engine. As soon as the smartphone unlocks the car, the drivers' preferred settings are automatically activated: seat and mirror positions, temperature, radio, etc.

Drivers can even create digital keys with customized authorizations and share them with the person of their choice.



Cutting-edge technology

- › Cloud-first approach with modular architecture for short time-to-market, faster updates, and high availability
- › Easy-to-integrate set of APIs to interface with the carmaker's backend server
- › Mobile SDK compatible with iOS and Android; and can be integrated in carmaker mobile apps
- › Support of privately-owned vehicles as well as Mobility-as-a-Service use cases
- › Enables Passive Entry Passive Start (PEPS) and Remote Keyless Entry (RKE) use cases
- › End-to-end security including secure provisioning and storage of the digital key on smartphones with whitebox cryptography (WBC) and tokenization