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## **SODA-IIoT4ConnectedCars: Spread updates between cars with limited Internet access**

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## SODA-IloT4ConnectedCars: Spread updates between cars with limited Internet access

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A **blockchain** infrastructure, combined with cryptographic signatures, can improve **availability** and **accountability** for the deployment of **IoT updates**.

However, cars with limited or intermittent Internet access may have difficulties in downloading full updates from the blockchain.

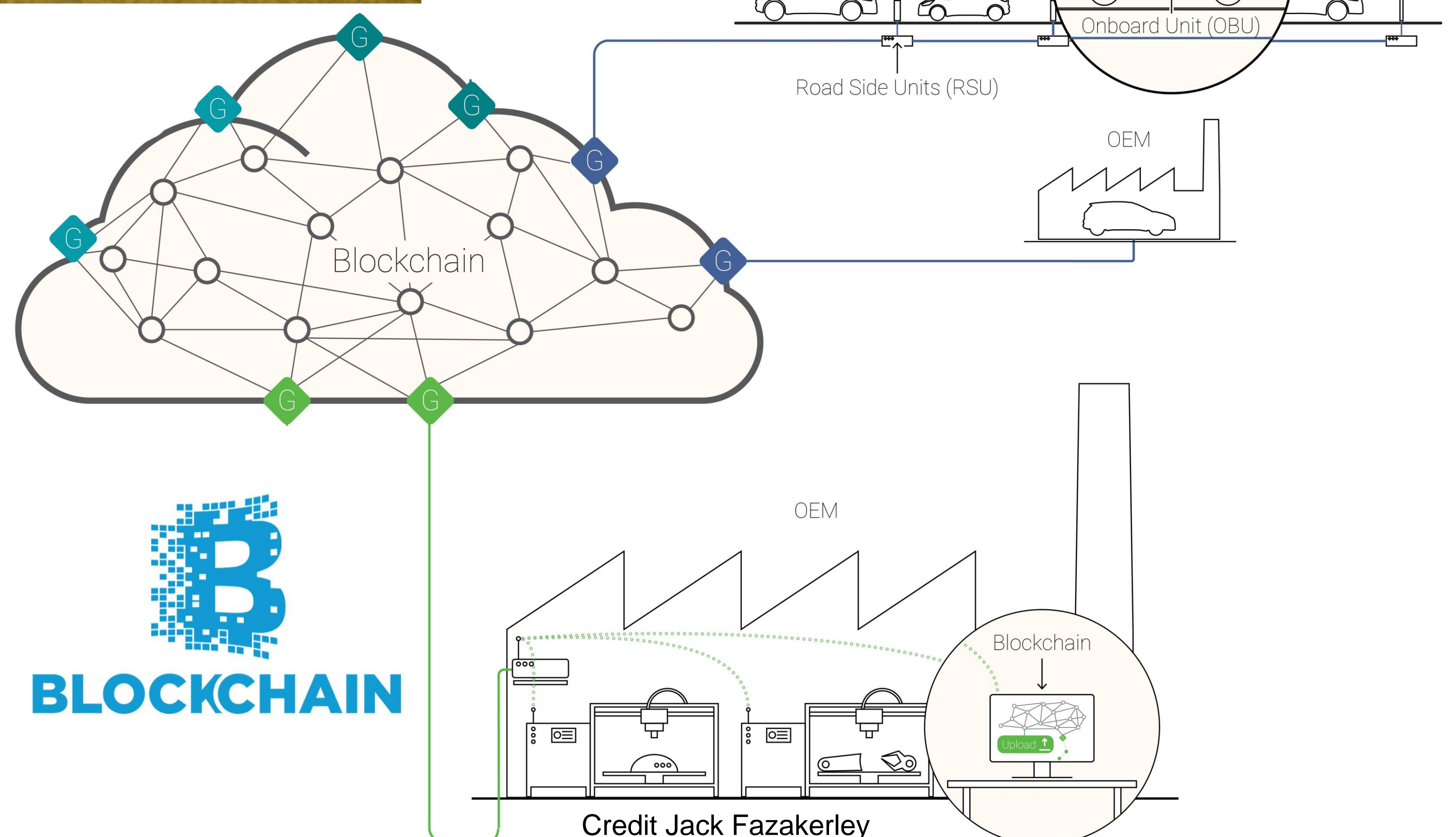
Therefore, we allow cars that successfully downloaded updates to share them with other cars by means of a **Peer-to-Peer (P2P)** mechanism.



Credit Flavien Quesnel

### Cars with *limited* Internet access:

1. Receive update notifications (from other cars)
2. Download updates (from other cars)
3. Check updates integrity (against the blockchain)
4. Install updates (if integrity is OK)
5. Notify the blockchain about the installation results (depending on updates integrity)
6. Broadcast update notifications to surrounding cars (if integrity is OK)



**SODA-IloT4ConnectedCars offers a secure way to update the components of cars that have limited or intermittent Internet access.**

**Secured On-the-pouce Decentralized Architecture for the Industrial Internet of Things (SODA-IloT)**, co-designed with IRT SystemX, CEA Tech List and Airbus Innovation Group, features innovative solution to manage IloT access rights management & secure software and firmware updates through **Blockchain technology & cryptographic signatures**.



The **SODA-IloT4ConnectedCars** demonstrator is built on top of the **CHES** platform (Cybersecurity Hardening Environment for Systems of Systems), an experimental and technical cybersecurity platform funded by **ANSSI** to support cybersecurity research effort at Institute for Technological Research SystemX - Paris-Saclay (EIC & CTI R&D projects).

This platform is part of French Government “Nouvelle France Industrielle”, Cybersecurity plan, action 8: set up one or more testing and demonstration cybersecurity platforms.

