



PIONEER IN SMART CONNECTIVITY AND
OPEN SOFTWARE ARCHITECTURE

www.paxlife.aero

Creating real bottom-line Value from in-vehicle Systems

COME ON BOARD WITH US

The public transport industry is facing major challenges triggered by the digital transformation of our world: passengers looking for reliable connectivity, operators willing to benefit from in-service data, online companies trying to reach customers on the go.

Today's systems are still mostly isolated from each other, or integrated at great cost, specific to hardware equipment, difficult and complex to update and upgrade. In fact, upgrading your infotainment can become a complex and expensive exercise. And adhering to more stringent security requirements can become a real headache.

RailStack by PaxLife: unlocking data exchange with a versatile and open infrastructure for an infinity of digital services.

PaxLife believes that upgrading in-vehicle systems should be as easy as installing an app on your smartphone.

What could run in the Cloud should work in your vehicle, no matter which make or version number of onboard computer you use.

Welcome to RailStack by PaxLife, built on two principles:

- A continuous yet powerful gateway to exchange high volumes of data to and from any public transport “edge” in a very short span of time with the digital world on the “Cloud”.
- A scalable, and easy-to-use architecture allowing operators or system integrators to build, deploy and manage any in house or third party set of applications - at any point in time, with “online integration and testing”, deployed with a click of a button.



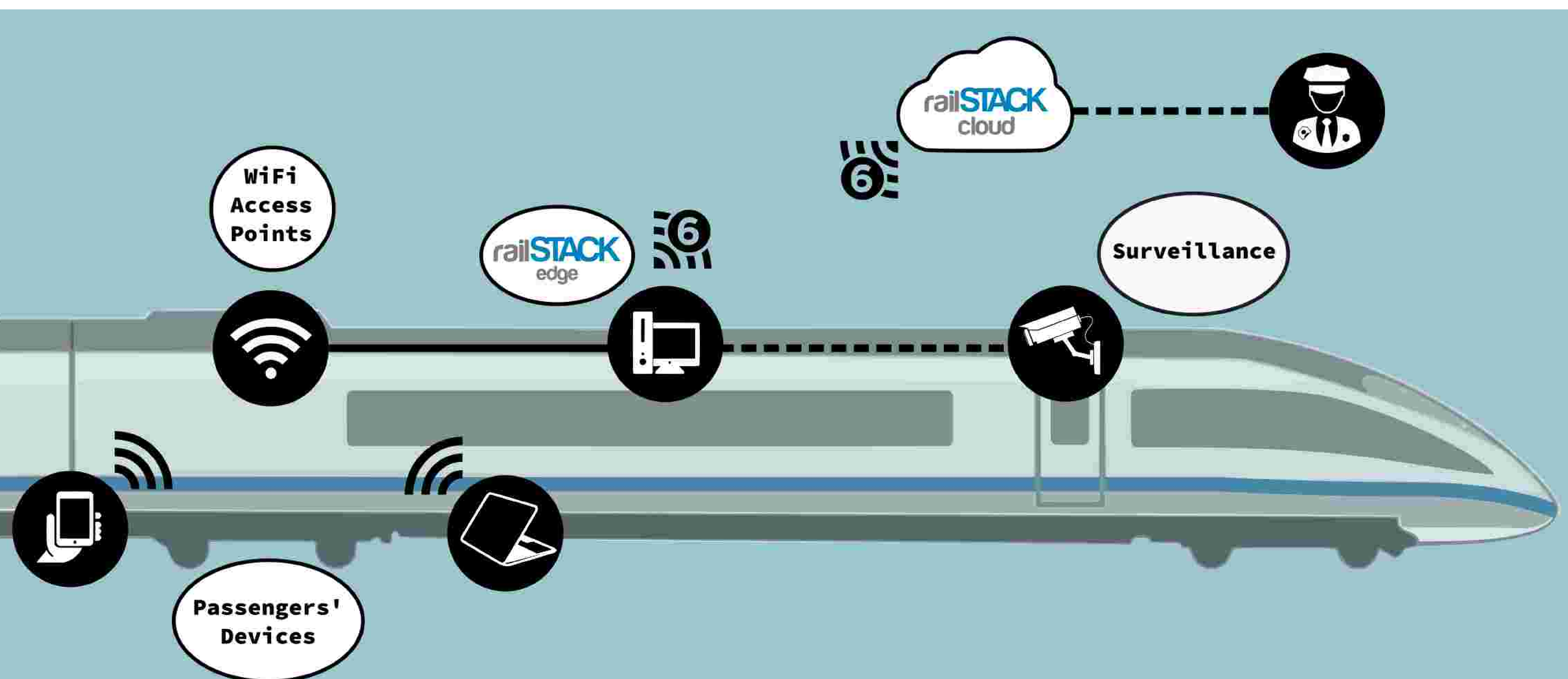
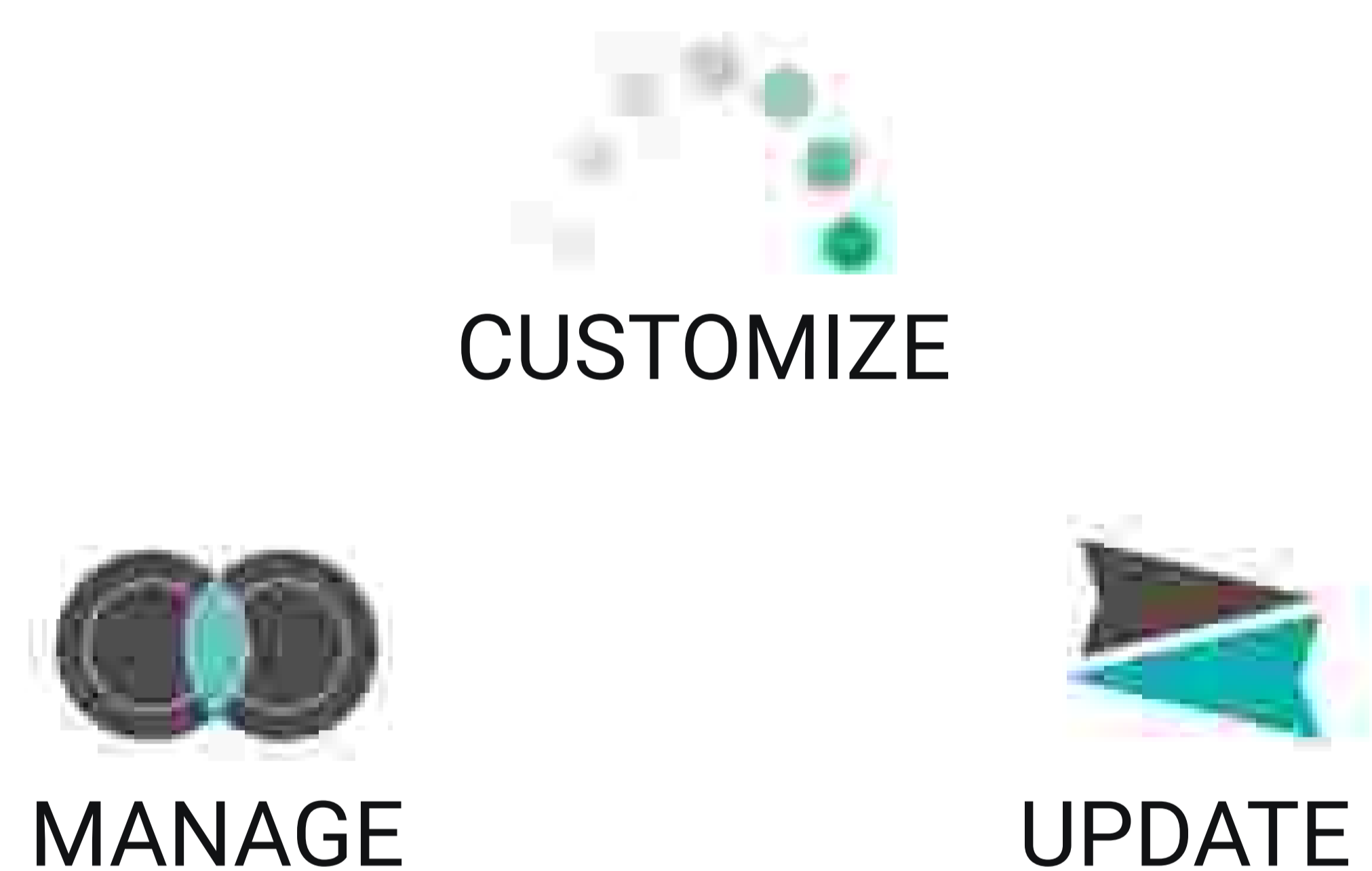


RailStack. MANAGING YOUR FLEET SOFTWARE HAS JUST CHANGED. FOR GOOD.

Over the past three years PaxLife has developed RailStack, a fully functional Edge-based Cloud platform for transportation such as rail, bus and air. RailStack content is updated via so-called data showers at key railway stations and other network nodes (like terminus stops), through which large amounts of data are transferred in a very short period of time.

RailStack is Cloud-provider-independent, open to any third party application, and remains under full operator control to deploy software without any additional integration needed - like deploying an app from an app shop to a smartphone.

The respective RailStack user retains complete data sovereignty, i.e. it does not have to share the data with AWS, Google or others. Different service providers can simultaneously and independently of each other create additional “value-added” services under their own data sovereignty and offer them to the transport company.



DIGITAL SERVICES FOR OPERATORS AND PASSENGERS

SURVEILLANCE

INFOTAINMENT

MEDIA &
LIVE RADIO

ON-BOARD
CONNECTIVITY

PREDICTIVE
MAINTENANCE

APP HOSTING
ON VEHICLE

New capabilities can be created in a snap

Surveillance & Video “as - a - service”

Leverage your existing surveillance system to add a turn-key service to give security staff online access to full surveillance footage off - train, involving daily offloads as high as 1 TB.

Infotainment - enhanced by web services

Enhance infotainment displays. We all know the standard displays that show the next stops, and sometimes connecting information. Why not enhance the power of the displays by adding digital services: warnings about expected delays ahead, indications of opening hours or ticket availability at next stop venues etc...

Media & Live Display

The Cloud-Edge sync device of RailStack doubles up as a powerful live digital radio receiver. Make all radio services of your region available to all your passengers in crisp digital quality, thanks to DAB+ technology. No bandwidth budget required. Any channel - on the headphones of your passengers.

Passenger expectations keep evolving. Adoption of smartphones and digital lifestyles have had a profound impact on passenger service expectations. With RailStack, you can host the entertainment apps passengers love onboard, offload WiFi service or free WiFi bandwidth for other use. Your TV station mediathek onboard, updated once every hour? No problem.

Upgrade infotainment to offer a fully digital journey

We love to use trip planning applications, and increasingly we also use the app to buy electronic tickets. Why not show my onboard infotainment display in my app, ready with relevant links to explore further?

Predictive Maintenance

You found a new sensor or IoT device that could be leveraged into your own predictive maintenance service? With RailStack’s open architecture, your team will deploy groundbreaking solutions to your vehicles in no time. Or - you let your preferred sensor provider deploy a “maintenance cost reduction - as - a - service”. Powered by RailStack

App Hosting on Vehicle

RailStack enables operators or system integrators to conceive, deploy and continuously improve their own vehicle, or fleet-wide set of apps or electronic services. Services available on RailStack can be swapped at any time, new services can be implemented, tested and deployed in days, without any integration fees from third party providers or PaxLife.

Above are only a few examples of the possibilities that [RailStack](#) enables.

RailStack, THE ENABLER

Benefits at a glance



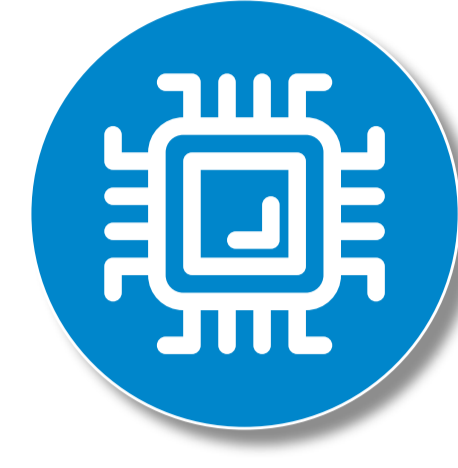
Maximize Data Throughput

RailStack collects and securely synchronizes significant amounts of data (up to 1 TByte per day) in both directions between the on-board train systems and the Cloud, no matter which route the vehicle takes.



Cloud Edge Hosting

Instead of hosting all the data in one centralized cloud, RailStack relies on a distributed computing infrastructure, bringing data storage, computation and, in fact, your private cloud hosting to the vehicle. This results in shorter response time for the users, lower bandwidth usage, and mitigates the risk of connection issues.



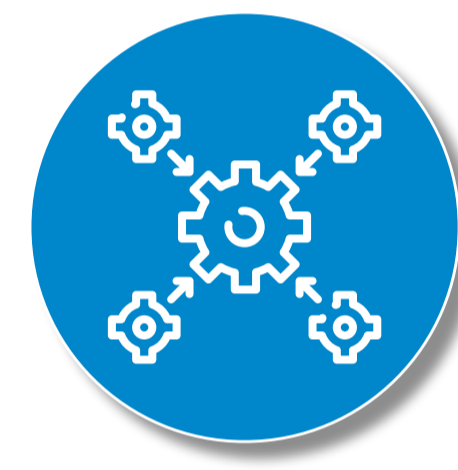
Hardware Agnostic

Full hardware abstraction means one software version for any variety of different hardware in your onboard fleet today



100% Data Control

Data exchanges are safe and secure. There is no involuntary data sharing with Cloud operators, unless operators choose to do so. In fact, RailStack can be hosted on any private Cloud.



Seamless Integration

With electronic services and “apps” (or, in fact, any operator or Third Party software) hosted in the vehicle (see above), RailStack is designed to continuously integrate and deploy updates that operators have decided to distribute to their fleet.

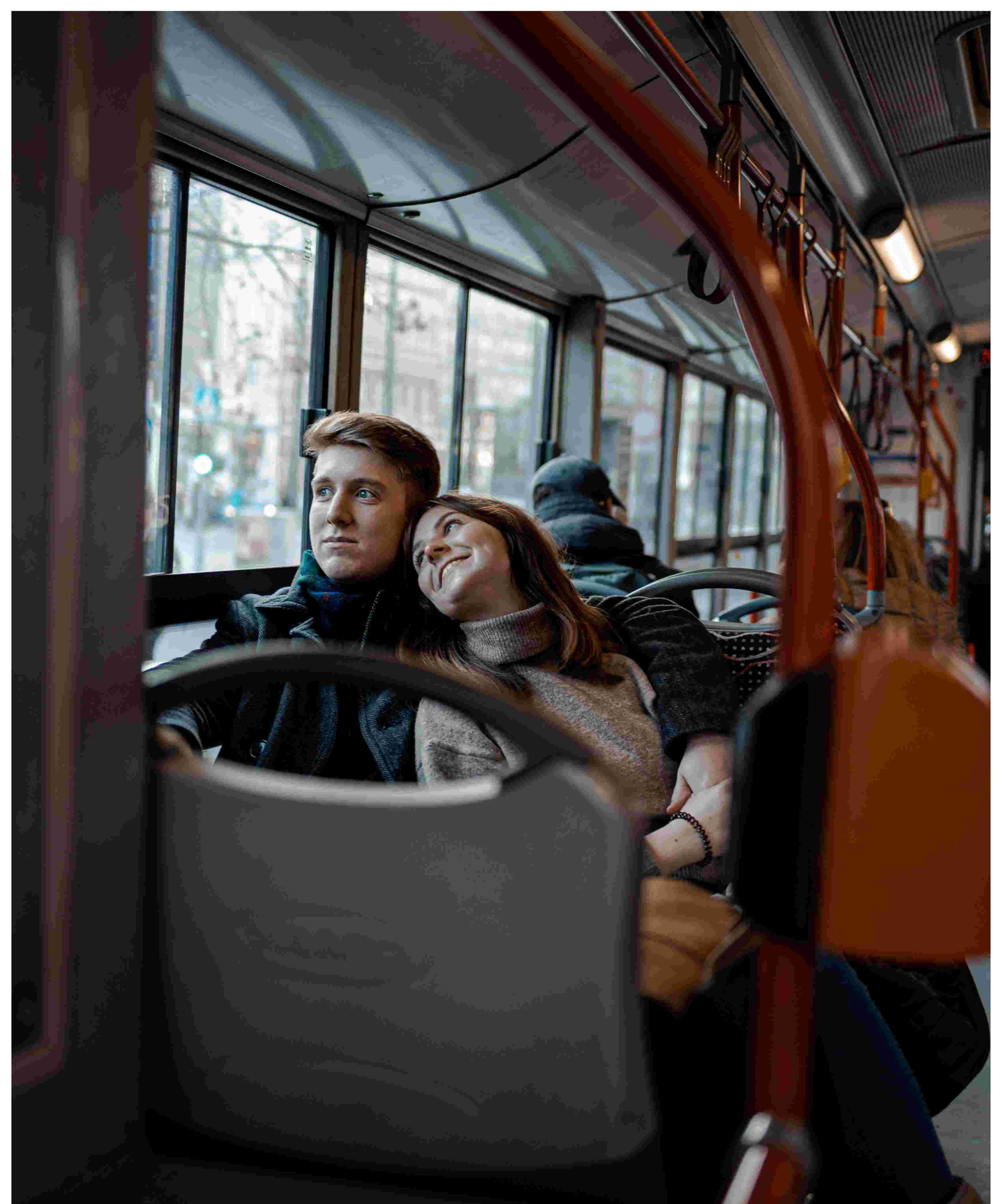
Paxlife in a Nutshell

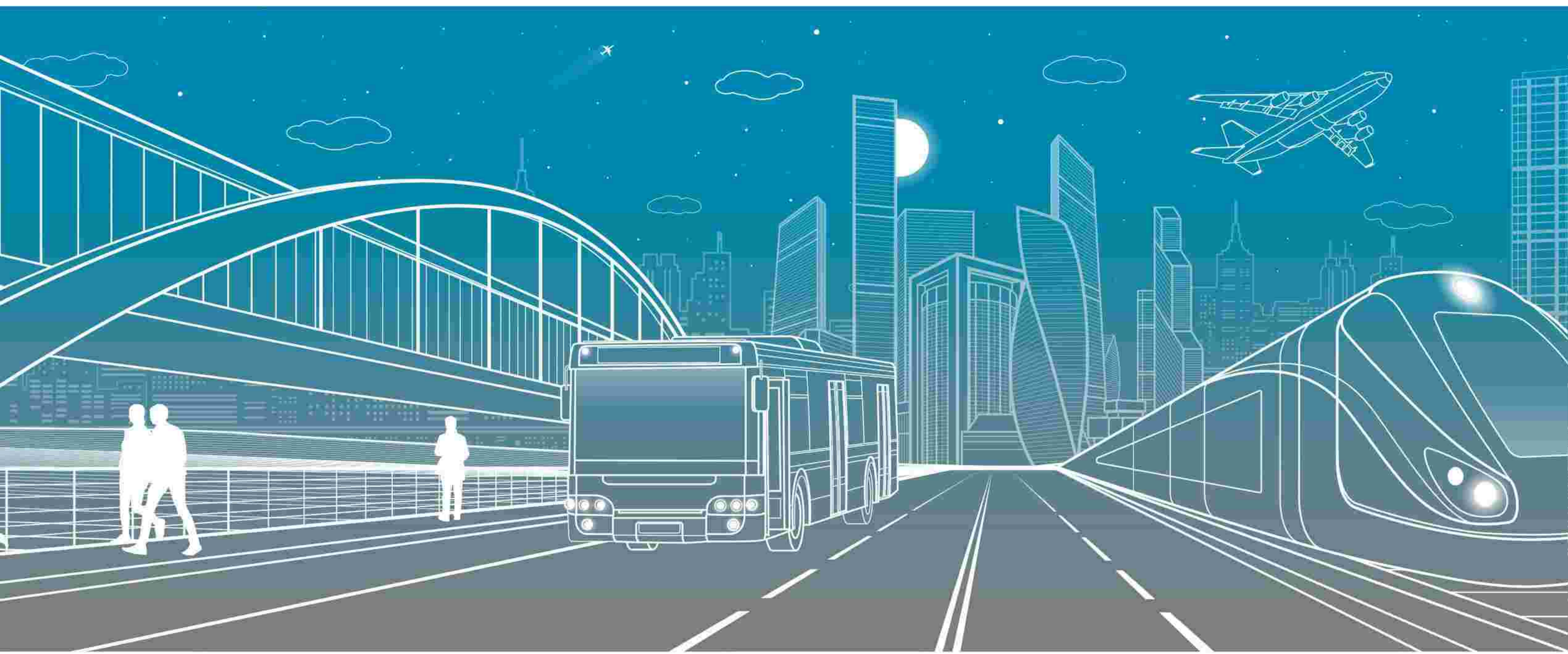
» PaxLife Innovations GmbH is a company that was originally established to connect aircraft passengers to the digital world.

» Over the years it has acquired a strong and rich experience in the design and integration of connectivity systems.

» Based in Potsdam, Germany, PaxLife has now brought its cutting edge technology to rail and launched RailStack in 2019.

RailStack trademark is registered by PaxLife Innovations GmbH





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