

## Introduction

pulz8Express is a wireless broadband solution for the rail industry. The patent pending technology provides safe, reliable and continuous high-speed communication solutions for train operators and their passengers.

## Solution

1. WLAN access points are installed in the train ensuring that passengers with compatible equipment will be connected to a central communications unit in the train.
2. From the central communication unit, connection is established via an antennae placed outside on the train with a wireless connection to various base stations. Connection from the antennae to the base station will be enabled using various transmission technologies.
3. From the base station, regardless of which transmission technology is used, the passenger will be connected to the Internet and will have access to all the same capabilities they have when they are logging in from home or the office.
4. When traveling, the train's central communication unit will automatically search for the base station providing the best signal and roam between available base stations without losing connection or packets.

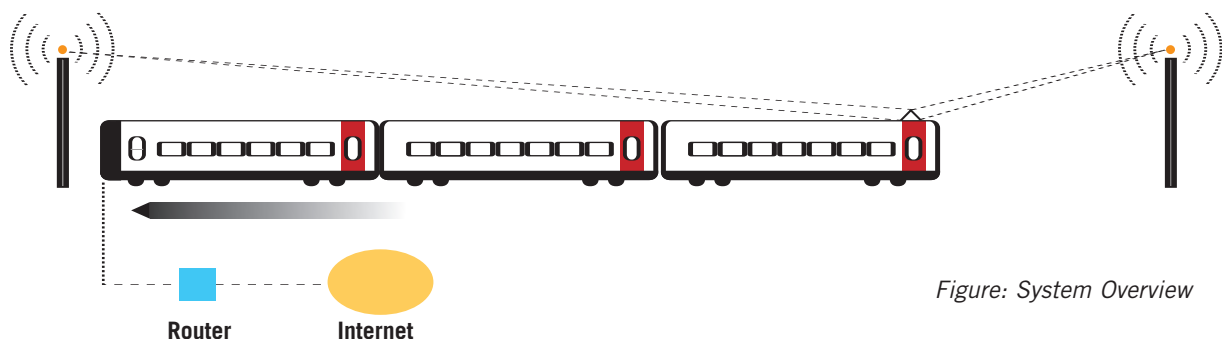


Figure: System Overview

## An Intelligent System

pulz8Express is an intelligent system with a unique roaming technology that surpasses all competitors' systems, in its stability and transparency to the user.

A technology that allows for roaming support and a continuous connection even through tunnels and when travelling at speeds exceeding 250 km/hr

### Secure

At pulz8, we have developed our technology in accordance with regulatory and industry authorities, ensuring that our carrier grade wireless data communication solutions meet the strictest safety and industry standards.

### Flexible

Because our systems are modular and developed using standard industry products, the systems' different components can simply be interchanged as bandwidth capacity and new technologies arise.

## Higher bandwidth at lower prices

pulz8Express is supported by a business model that is so radically different from the competition's that it enables train operators to offer wireless Internet services with higher bandwidth at lower prices.

In fact, our patent pending technology is so flexible that you can even choose to eliminate satellite or GSM/GPRS or UMTS hook-ups for on board communications, thereby eliminating the high operations costs associated with these standard type connections.

## pulz8Express advantages:

- > Flexible and attractive business models
- > Scalable system that provides the bandwidth you want to deliver
- > Future proof – system is easily upgraded
- > Digital video surveillance in the train
- > Continuous access - even through tunnels and speeds exceeding of 250 km/hour
- > Voice over Internet capable
- > Secure private network for internal communications
- > Monitoring of the train's systems and vital statistics
- > Real time GPS train-positioning
- > Real time updates and registration of reservations
- > Integration with internal systems
- > Interactive information monitor for passengers and staff
- > Modular system adaptable to your architecture

## Great service

When you choose pulz8Express, you not only choose the best solution on the market, but a motivated support team that is there to help you every step of the way in your implementation, and support you once the system is in place.

In fact, even before implementation begins, our experts will help you tailor pulz8Express to your specific business and technology needs. And, because pulz8Express is so flexible, together, we can choose the right package to meet your deployment needs.



## pulz8 Train Unit

Believe it or not, this lightweight unit is all you will need to give your passengers and crew wireless Internet access. You can mount it inside the train or outside because it is extremely rugged and weather proof. Just plug it in, attach the two antennas, or connect to them via standard coaxial cables and you are up and running. It is that simple.

pulz8 Train Unit 3462

21.6 x 29.2 x 7cm

2.7 kg

Power input options:

AC 100-250V 50-60 Hz or DC 6-60V

Both options can be supplied with built-in battery backup

**Address:** Købmagergade 2, 5. DK-1150 Copenhagen K., Denmark Telephone: +45 7026 8626

**pulz8:** pulz8 delivers wireless network solutions and hotspots to operators, manufacturers and infrastructure owners in the passenger transport industry. Company headquarters are in Copenhagen, Denmark with sales representation in the USA and UK. [www.pulz8.com](http://www.pulz8.com)