

The Siemens logo is displayed in a bold, teal, sans-serif font.

Ingenuity for life

A photograph of an amusement park ride. The ride consists of a track with a carriage that has a large, white, umbrella-like canopy. Two children are visible in the carriage. In the background, there is a building with a dome and a tower, and a white balustrade with red flowers in the foreground.

Safe entertainment in amusement parks

Wireless communication with safety functions

Personal safety is crucial

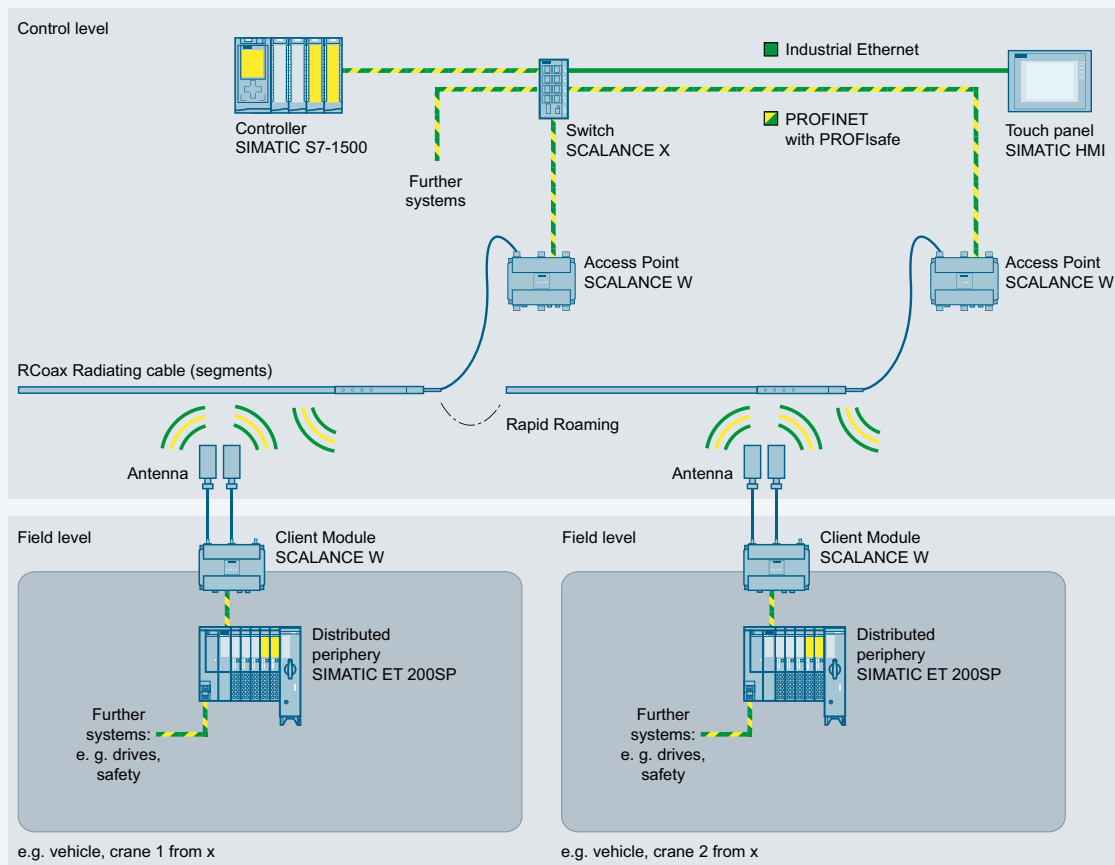
Fun and cheerful exuberance: All visitors of amusement parks want to leave their everyday lives behind for a few hours. It's a major challenge for the operators, though. They have to ensure a trouble-free and absolutely reliable operation. All rides have to meet the highest safety requirements to keep every visitor and employee safe from harm. At the same time, exciting attractions with state-of-the-art technology are required to inspire thousands of visitors.

Reliable technology for recreational pleasure

Wireless technologies are becoming increasingly important for fairs and amusement parks. In many modern parks the vehicles are controlled through Industrial Wireless LAN (IWLAN) safely thanks to complete radio coverage. Operation can be interrupted at any time with an emergency stop function, if in doubt. And outdoors passenger transport in particular needs to work a hundred percent in all weathers.

Advantages of IWLAN in amusement parks

- Maximum reliability and personal safety thanks to real-time communication
- Safe emergency stop function for automation components
- Investment protection thanks to long product life cycles
- Cross-industry solution for diverse applications like logistics, automotive, and transportation



Wireless riding pleasure

Maximum safety requires real-time data communication in order to effectively avoid damage when a failure occurs. This can be realized with a wireless IWLAN connection with the Industrial Point Coordination Function (iPCF) iFeature. iPCF enables even PROFINET and EtherNet/IP applications to use WLAN for wireless communication, especially in applications that are built in a linear fashion.

Best signal quality for ideal communication

The combination of SCALANCE W Access Points and Client Modules, control technology, and communication protocols provides maximum reliability and increased safety for passengers even in unexpected situations.

Using RCoax instead of a regular antenna ensures a reliable and permanently uniform signal quality. An RCoax solution is wear-free, low-maintenance, and safe, and provides any application with a controlled and defined radio field that allows data to be transmitted in real-time. The entire data flow of a cell can be structured

with iPCF to make communication deterministic. If network quality gets worse, iPCF enables switching between two cells – a crucial feature for moving network participants like the cars of a ride. It also enables constant roaming times at well below 50 ms.

Even more advantages in other applications and markets

When transporting passengers from point A to point B with driverless transport systems, it is mandatory indoors and out to guarantee safe and fast data traffic. Not only so in the rides of an amusement park, but also when using Automated People-Movers (APM) or overhead monorails.

Maximum availability and smooth operation are fundamental requirements for transport systems in rough industrial environments. With SCALANCE W and iPCF, Siemens offers the right solutions for any application.

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