

RFID Use Case: Ticketing

Initial situation

In order to improve the customer experience and the efficiency and speed of access to its ski lifts, a ski resort operator decided to modernise its access gates. Previously, access to the lift was gained using readers that required skiers to actively present their ticket. This often resulted in queues at the gates and limited real-time transparency.



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Solution

The operator introduced a UHF RFID solution that enables contactless reading of ski passes over greater distances, without active presentation. Access gates were equipped with UHF reader modules and directional antennas, and ski passes were issued with UHF transponders optimised for cold and wet conditions. The system preserves selectivity at the gate while increasing throughput and convenience.



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The challenge: setting the antennas correctly

As there are usually several gates next to each other at the access point, it had to be ensured that only the pass of the person standing directly in front of the gate was read. It was important that the pass of another person in the queue behind or at another gate next to it was not read. The antenna system therefore shapes a narrow reading corridor at the gate, avoiding false reads and cross-reads to ensure a smooth process.

Hardware and software set-up

The existing access gates were upgraded with UHF components from KATHREIN Solutions, enabling precise ticket recognition. A proven setup with the **RRU 4500 RFID Reader** and **SmartShelf antennas** served as a basis; reader module and antennas were then customised for series deployment. The ski pass contains a UHF RFID transponder designed for reliable operation in alpine conditions.



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Results and benefits

The upgrade of the existing access gates now offers skiers a fully contactless alternative. Waiting times at the gates have been reduced and a streamlined process represents a major step forward in the use of UHF RFID technology in this environment.

Ticketing takes many forms. Proven solutions such as this can be replicated in scenarios where gates need to handle many people quickly and accurately, for example in sports stadiums or concert venues.



Your Advanced Systems team is here to help you develop ticketing applications that maximise the benefits of the very latest RFID technology.