Swiss Federal Railways
Mobile Track and Trace
Executive Summary
Swiss Federal Railways (SBB) is the national railway company of Switzerland. Every year, SBB transports 366 million passengers, and its transport routes make up a significant proportion of Switzerland’s 5,124 km railroad network. With an operating income of more than 8.5 billion CHF and over 31,000 railway employees, SBB isn’t just the largest travel and transport company in Switzerland, it’s also one of the country’s largest employers.

Scandit Flow allowed SBB to get going quickly with a Mobile Track and Trace Solution, using web-configurable barcode scanning workflows and backend cloud services that seamlessly integrated with their existing custom IT systems for rapid deployment. Scandit’s solution enabled SBB to replace dedicated barcode scanners and streamline internal delivery tracking with smartphones throughout its railway network.

Metrics of Success
Cost Savings: 40% reduction in software costs over 3 years compared to competing solutions.
Equivalent Performance: 4 out of 5 SBB employees confirm Scandit provides equivalent or better performance than dedicated barcode scanners, even in adverse conditions.
Scan Volume: An average of 6,000+ scans per day, with more than 180,000 scans per month.

Starting Point
A smartphone-based tracking solution for enterprise success

SBB’s Company Mail Department is responsible for the pickup and delivery of all internal shipments as they move across the railway system, ensuring quality control and overall customer satisfaction when transporting goods. SBB needed an efficient and cost effective way to track internal mail, packages, pallets and customer luggage throughout their system. Like many businesses, they had traditionally used dedicated barcode scanners to track and trace deliveries traveling by train or truck, but SBB’s dedicated scanning devices were often broken, hard to maintain and required employees to carry multiple devices to fulfill all their daily tasks in the workplace. Trying to solve this problem, and embrace a more efficient and future-proof solution, SBB decided to invest in a rugged* smartphone-based barcode scanning solution which presented greater functionality at a 40% lower software development cost. Beyond this initial cost-savings, using industry standard calculations and device ruggedness ratings, SBB is also projected to see a 75% overall reduction in total cost of ownership (TCO) deploying rugged smartphones over 4 years compared to dedicated barcode scanners.*
Vision: Tracking internal deliveries with a single, lightweight device

SBB envisioned a mobile track and trace app that could help employees improve the quality control within Company Mail Department by allowing them to accurately track and trace internal deliveries by truck and railcar more effectively, from a single device.

The IT team at SBB wanted to utilize the latest smartphone functionality allowing for improved employee productivity by adapting their existing WindowsCE barcode scanning workflow to a mobile app. Smartphone-based scanning performance offered the ability to complete all tracking tasks from one, easy-to-use device, while simultaneously providing other important tools for improving efficiency among employees; such as access to internal GPS, email, phone and future enterprise line-of-business applications.

Solution: A future-proof mobile solution that easily integrates with existing IT

When SBB began the search for the perfect track and trace solution they knew they needed something that was easy to configure, fast to implement and integrated with their existing, custom IT system. Most importantly however, the solution had to deliver a robust, accurate barcode scanning experience that provided performance equal to the dedicated barcode scanners they wanted to replace—especially in adverse conditions such as low-lighting and glare.

Short of creating a custom mobile application that would take many months of software development and upfront resources, only one solution stood up to the challenge: Scandit Flow. With its enterprise-grade scanning performance, out-of-the-box barcode scanning workflows and cloud services for custom workflows and enterprise IT integration, it was the perfect fit for all their needs.
Increased productivity and streamlined traceability

Today, SBB benefits from a mobile workforce that is able to scan and track Company Mail deliveries throughout the rail network using smartphones. Thanks to Scandit, SBB has successfully replaced Motorola MC70 and MC75 mobile computers and quickly integrated and deployed a mobile track and trace app to employee smartphones in just eight weeks, from start to finish. SBB's Company Mail team has also tripled the number of devices previously used for barcode scanning workflows — all while lowering hardware costs by adopting smartphones. Leveraging greater smartphone functionality, and Scandit Flow, SBB employees are now able to manage all delivery workflows from a single lightweight device that increases productivity, while driving down internal IT costs. Meanwhile, SBB's IT department benefits from seamless mobile application lifecycle management with Scandit's web dashboard — making it easy to manage users and quickly redistribute apps for field testing, staging and deployment.

Since SBB deployed Scandit Flow, employees have also reported higher satisfaction resulting from the ease-of-use of Scandit's modern user interface compared with the outdated user interfaces presented by dedicated scanners. As a result, SBB employees were able to quickly learn and adopt the new smartphone-based solution without difficulty.

An internal user survey reported that 4 out of 5 employees agree Scandit provides excellent scanning performance—even in adverse conditions—equal to or better than dedicate scanners.

With Scandit Flow, SBB has successfully increased employee productivity, lowered its IT costs and replaced dedicated scanners with a future-proof mobile strategy that will allow them to track and trace deliveries for years to come.

="Scandit Flow consolidated our tasks to a single device capable of all our track and trace needs. The mobile app is also easy to operate, making employee adoption quick and painless."
- Ernst Kienzle,
SBB employee
**Metrics of Success**

- **40%** Reduction in software costs over 3 years compared to competing solutions.
- **4 Out Of 5** Employees agree performance is equal to dedicated scanners.
- **Barcode Breakdown**
  - CODE 128 ~ 97%
  - ITF ~ 3%

- **6,000+ Scans Per Day**
- **180,000+ Scans Per Month**

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**Key Results**

Using Scandit Flow, SBB’s Company Mail Department was successfully able to replace dedicated barcode scanners with a mobile track and trace solution, drastically reducing internal IT costs and improving employee satisfaction—all without sacrificing barcode scanning accuracy or performance.

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“Scandit Flow streamlined our tracking processes by seamlessly integrating with our existing IT system and ensuring deliveries can accurately be managed and traced throughout our network from a single device—freeing us from our reliance on dedicated barcode scanners.”

- Conradin Lietha
  Project Manager, SBB

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Interested in mobilizing your workforce with smartphone-based barcode scanning?

Contact one of our team members

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[Download the Demo app]

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Find More Case Studies at: [www.scandit.com/resources/case-studies](http://www.scandit.com/resources/case-studies)
**Ingress Protection certified with a fully-rugged rating of IP67 or higher. Protected from total dust ingress. Protected from immersion between 15 centimeters and 1 meter in depth.**

**The enclosed TCO calculations assume that the “rugged” IP67 certified Samsung smartphone is not equivalent to “semi-rugged” IP54 durability standards of a mobile computer, and is a device of “durable” ruggedness. With this assumption, TCO can be established by referencing Exhibits 2 & 4 from the “TCO Models for Mobile Computing and Communications Platforms” study conducted by VDC Research.**
About Scandit

Scandit delivers high performance mobile solutions for smartphones, tablets and wearables, designed to transform consumer engagement and operational efficiency for today’s forward-looking enterprises.

Scandit solutions are built on its patented software-based barcode scanner and are used in a variety of industries including retail, manufacturing and logistics. With nearly 25,000 licensees in more than 100 countries, Scandit processes more than half a billion scans per year and develops enterprise-grade solutions for many of the world’s most prestigious brands including Ahold, Coop, Home Depot, NASA, Saks Fifth Avenue and Verizon.

Founded in 2009 by a group of researchers from MIT, ETH Zurich and IBM Research, today Scandit and its network of global integration and technology partners are pushing the boundaries of mobile AIDC (automatic identification and data capture), delivering groundbreaking identification and data capture applications to customers. For more information visit www.scandit.com.

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