STORMSHIELD

BUSINESS CASE

# Secure baggage sorting systems: an essential priority for the smooth transit of passengers

AIR TRANSPORT

The development and modernisation of airport infrastructure can be a source of cybersecurity risks if this issue is not addressed at an early stage.

It was a challenge with an obvious answer for one of France's leading airport groups, which makes a point of integrating cybersecurity into all its deployments right from the project design stage, and has placed its trust in Stormshield for many years. We take a look at the implementation of a new secure baggage sorting system.

Global air transport has been growing steadily for many years, with a record growth rate of over 10% in passenger numbers in 2024. Against this backdrop, the airport infrastructure has adapted, and continues to adapt, to comfortably accommodate the growing flow of passengers. New terminals are being introduced, incorporating the latest technology in terms of equipment to ensure comfort, a smooth customer experience and optimum security.

This was the situation faced by one of France's main airports, which is constantly expanding and modernising, with new interconnected baggage sorting systems, lifts and video surveillance systems.

However, this digital transformation is leading to an increase in cybersecurity risks. This poses a challenge for IT and OT teams, and one that needs to be taken into account when considering any new construction or modernisation project.

***"When a new system was implemented, the IT teams at this airport group took great care to plan for all the cybersecurity issues inherent in the project, and also to set up the OT/IT infrastructure necessary for its operation."***

**Vincent Nicaise**
Industry Team Leader at Stormshield

## The baggage sorting system: a critically important industrial resource

Within an airport, operational information systems are omnipresent and now interconnected, presenting multiple attack surfaces and, by extension, multiple cyber risks. Baggage sorting systems are certainly not immune to these risks.

That's why, when setting up this new system, the IT and OT teams at this airport group considered all the cybersecurity issues involved in the project, with a particular focus on the secure exchanges between the OT infrastructure and the IT infrastructure, which are necessary for the baggage sorting system to function properly.



***The client's chosen hardware was Stormshield Network Security firewalls, which are ideally suited to this type of industrial project.***

## Each baggage sorting line is individually secured by SNi40

This equipment is specially designed to protect PLCs (...) to fit into environments subject to specific conditions (dust, high or low temperatures, etc.)

Compromised baggage sorting systems can cause major disruption at airports, including delayed flights, grounded fleets and even baggage not being distributed.

## A "secure by design" project right from the start

To implement this new baggage sorting system, the head of the baggage operational unit turned to a recognised manufacturer in the market, which has a cybersecurity expertise unit within its teams.

Thanks to these skills, cybersecurity was integrated into the design of the project from the outset, in order to anticipate a number of cyber-attack scenarios and propose solutions for hardening equipment and network segmentations between the OT and IT infrastructures.

For example, the cybersecurity system can block any potential attacker at the perimeter of the attacked area and prevent them from moving around the networks.

The client's chosen hardware was Stormshield Network Security firewalls, which are ideally suited to this type of industrial project. This choice of technology was backed by the confidence placed in Stormshield as a vendor; its solutions have been qualified by ANSSI, and it has already been called upon to work on numerous projects within the airport.

# SOLUTIONS USED

→ SNi40

→ SN510

## A double barrier and granular network segmentation for enhanced security

To ensure the security of flows between the IT and OT networks, a cluster of SN510 firewalls was deployed in the form of a double barrier along with a competing technology, as recommended by ANSSI.

Each baggage sorting line is also individually secured by SNi40 industrial firewalls. This equipment is specially designed to protect PLCs (Programmable Logic Controllers), to fit into environments subject to specific conditions (dust, high or low temperatures, etc.) and to enable in-depth, context-sensitive analysis of Modbus TCP protocol compliance to ensure that no other type of communication can access the sorting system.

The SNi40s enable granular segmentation between administration VLANs and business VLANs: a best practice recommended by ANSSI. This ensures, for example, that an administrator of a sorting system component cannot end up on the same network as the baggage sorting system itself.

Many other projects incorporate Stormshield-qualified equipment within the airport, to the same high standards, to ensure the optimum level of security essential for any structure classified as an Organisme d'Importance Vitale (OIV) by ANSSI.

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