

Airport Hanover



*First integrated
100 % HBS in
Germany*

The first baggage handling system with a integrated 100% HBS (Hold Baggage Screening) at a German airport was commissioned in June 1998.

Flughafen Hannover Langenhagen GmbH (Hanover Airport) constructed a new terminal (Terminal C). Vanderlande Industries GmbH was responsible as the general contractor for the installation of a baggage handling and sorting system. PSI Logistics GmbH supplied the host computer level of the baggage handling and sorting system, designed on the principle of redundancy. The system is designed for 24/7 operation. It handles up to 1,600 pieces of baggage per hour for a total of 22 different sorting destinations. The integral early baggage storage have a capacity of 200 pieces of baggage.

*Sorting 1,600
pieces of baggage
around the clock*

Task and Realisation

Special technology was used to ensure high availability in 24/7 operation. A high-availability solution specially developed by PSI Logistics GmbH, based on two UNIX computers, made particular allowance for the demands on high-availability software systems linked to automatic conveyor systems. Screened baggage is sent to the sorting destination in accordance with the agents' instructions under the control of the host computer. The sorting host computer receives the necessary data from the connected systems. Flexible planning of the sorting chutes is possible at any time.

*Fail-safe host
system*

- The host computer receives details on the baggage to be handled from the operating airlines through two SITA interfaces (Cubes/MDS)
- Data about the relevant departure flights are transmitted through a flight plan management system (FPMS) interface. The PFMS receives comprehensive flight-related statistics from the host computer after a flight has closed
- The host computer transmits the results from the X-ray inspection stages to a system of the Federal Border Police for matching passengers and baggage

The distribution of the sorting chutes by the agents is supported by dialogues from the host computer. Special workstation functions such as “no-read” processing or “last-minutes” handling make it easy for users to handle special cases. An alternative solution has also been installed for handling baggage from an airline which does not provide the host computer with any baggage data through the SITA network. These airline can also benefit from the advantages of the state-of-the-art system by printing IATA-standard baggage tags which are assigned to flights. For this, the BSM data required for sorting are sent to the host computer while the baggage tags are printed.

*Flexible
Disposition*

Configuration

The host computer level is designed as classic client/server architecture. The server-end high-availability system consists of two Hewlett Packard UNIX computers running HP UX 10.20. Data is

stored in two Oracle databases. If the working server fails, an automatic changeover is made to the stand-by system, triggered by specific system information. This is achieved by a special, synchronisation mechanism which can be configured through several parameters. JAVA-based client applications running under Windows NT are used on the workstations. The conveyor control systems and connected third-party systems are linked through configurable TCP/IP telegram interfaces. Innovative system architecture ensures punctual baggage sorting.

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