



Engineering Certainty

A Strategic Guide to Selecting
Baggage Handling Systems
Integrators in 2026

Five strategic insights that separate high-performing BHS integrations from costly operational failures.

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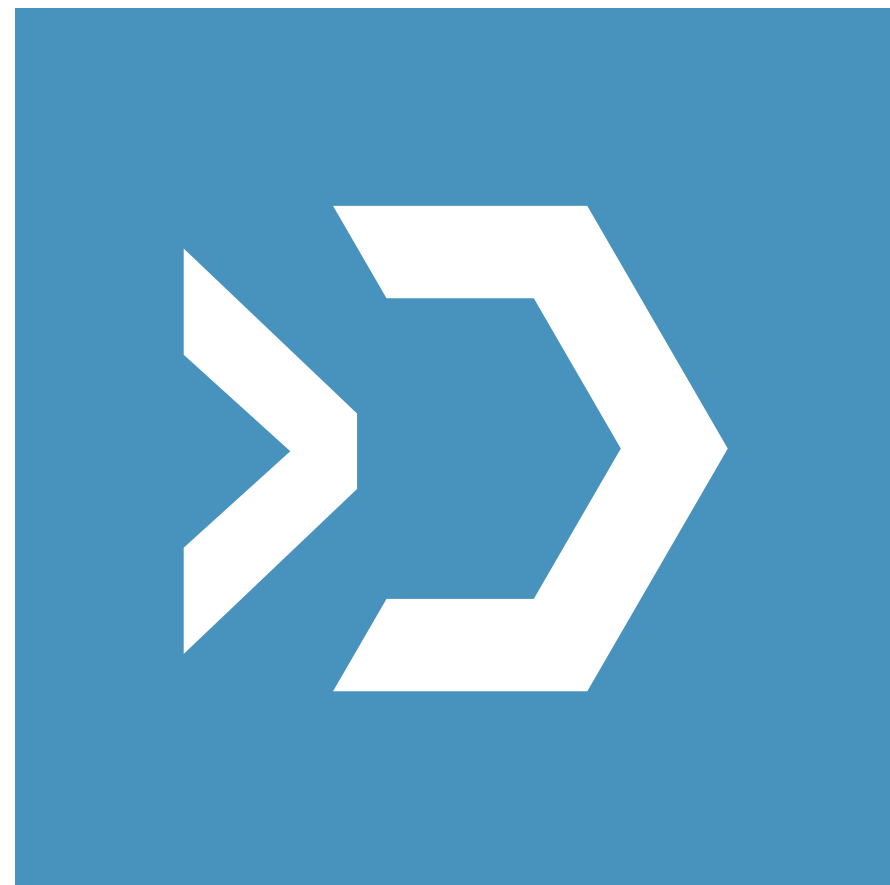
**What you will find
in this guide**



Why most BHS upgrades fail before the first bag is loaded.

In 2026, a Baggage Handling System is no longer a mechanical project with some software added. It is a **complex digital ecosystem** that happens to move physical assets.

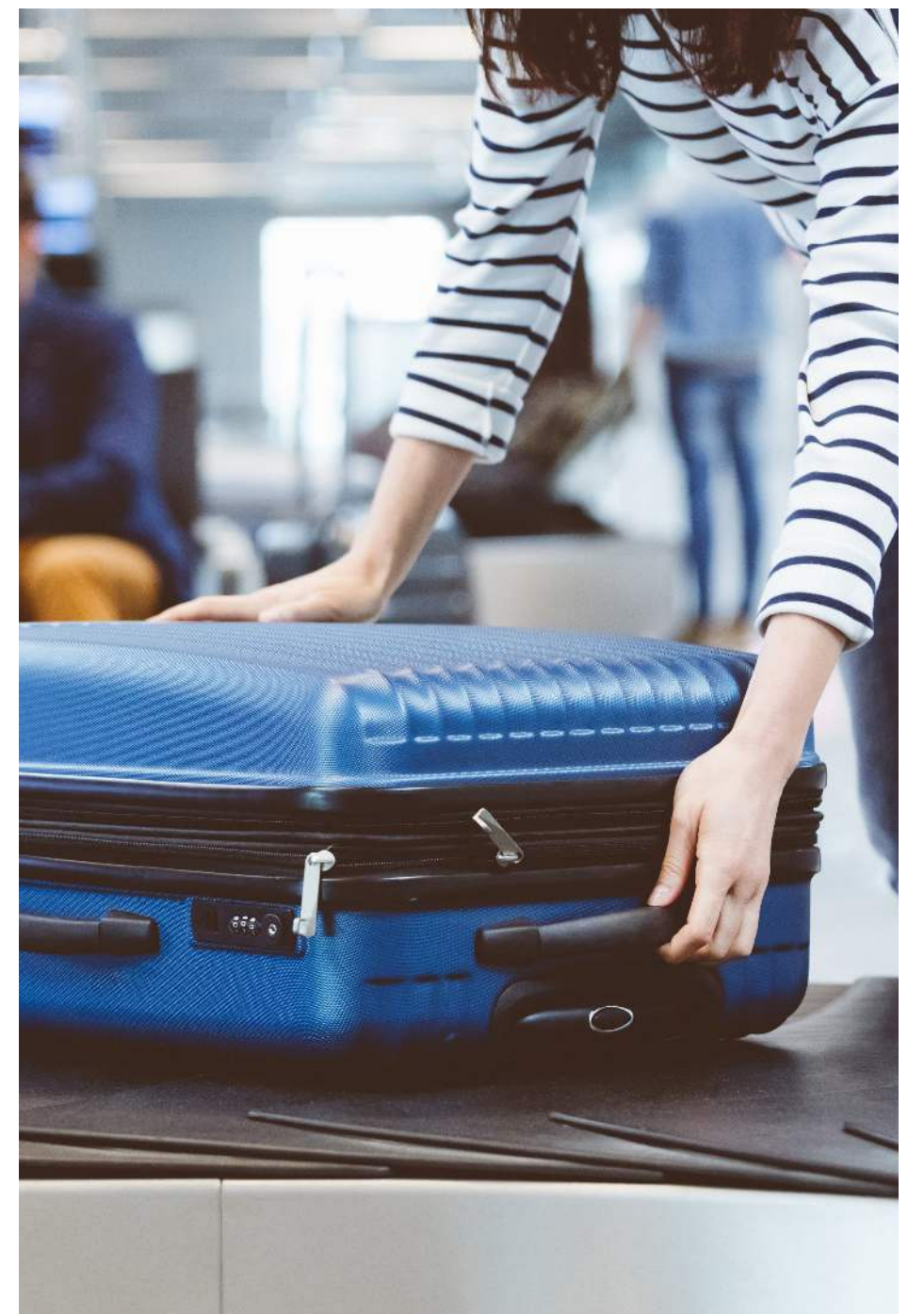
High-end equipment does not guarantee high-end performance. A state-of-the-art EDS scanner or a high-speed sorter is only as effective as the logic that integrates it into the wider terminal. When the ‘handshake’ between systems fails, throughput collapses, costs spiral, and operational certainty vanishes.



Within this guide, we move beyond hardware to share the **five strategic criteria** for selecting a **systems integrator** who doesn’t just ‘install’ machines, but orchestrates a resilient, high-performance operation.

Trusted across Europe and the Middle East – in live airport operations.

- $\geq 99.9\%$ uptime
- Zero downtime upgrades
- Europe & Middle East



- **Delivered across airports and critical infrastructure in Europe and the Middle East** – from regional terminals to multi-station national railway networks, with systems commissioned and fully operational in every project.
- **$\geq 99.9\%$ system uptime across delivered BHS projects** – with redundancy switchover under 1 second, engineered into every integration from the control logic level up.
- **Zero operational downtime during live system upgrades** – including full EDS replacement and control software modification on an active airport BHS, without interrupting a single flight operation.

WE Engineer.

 IESYS



Architectural Logic Over Physical Components

1

THE GAP

Most project owners focus on “**visible**” assets (conveyors, sorters, scanners), assuming logic will follow the layout. In reality, a flawed data architecture will throttle even the fastest hardware.

THE INSIGHT

In high-stakes environments, your **system is only as fast as its decision-making speed**. If data flow isn’t mapped before the belts are bolted down, you are building a physical solution to a digital problem.

THE IESYS SOLUTION

We apply **Smart Engineering** to prioritize the **Logical Data Map** as the foundation. By defining how information travels between sensors and controllers first, we ensure the physical layout serves the operational throughput — ensuring compliance and continuity.



“Interface Ownership” – Solving the No-Man’s Land Risk

2

THE GAP

Integration failures rarely happen within a machine; they occur at the ‘handshake’ between different vendors (e.g., EDS scanner meets BHS PLC). Without a clear owner, vendors often engage in finger-pointing during downtime.

THE INSIGHT

“No-man’s land” – the gap between subsystems – is where 70% of delays occur. You don’t need a supplier; you need a single entity to ‘own’ the interface between PLC, EDS, ATR, SCADA and operators.

THE IESYS SOLUTION

We act as the **Interface Custodian**. Leveraging our international expertise across airport, automotive and critical infrastructure automation, we take full ownership of every communication protocol in the system – PLC, EDS ATR, SCADA and operator interfaces – ensuring seamless integration and eliminating operational silos.



Dynamic Flow Control vs. Static Routing

3

THE GAP

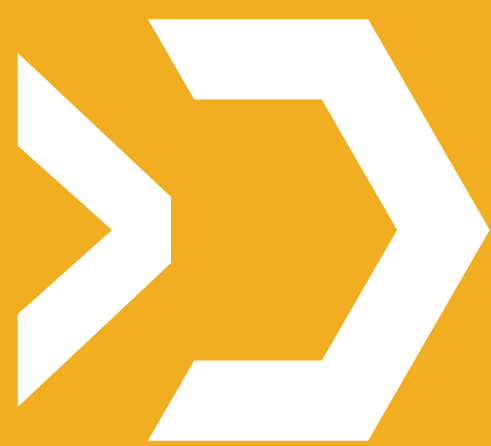
Relying on **static routing** means bags follow fixed paths regardless of real-time congestion. If one scanner slows down, the entire system faces a “die-back”, even if other lines are not used at full capacity.

THE INSIGHT

Paper-based throughput models cannot account for real-world variables like recirculating bags or surge peaks. You need a system that “thinks” in real-time.

THE IESYS SOLUTION

We implement **Advanced Flow Control Logic** within our custom SCADA and PLC platforms. Our systems monitor line occupancy in real-time, automatically rerouting traffic to prevent bottlenecks and ensuring that your facility hits its nominal capacity even under extreme stress.



Integration Architecture Designed for Change

4

THE GAP

Most BHS integrations are engineered for **Day 1 performance**. When airports expand, compliance mandates evolve or new EDS generations are introduced, the system requires costly redesigns, because the integration logic was never built to absorb change.

THE INSIGHT

A BHS integration **is not a one-time project**; it is a living operational layer. The real cost is not the initial build, it is the forced re-engineering every time the airport evolves.

THE IESYS SOLUTION

We design **adaptive integration architectures** built to absorb change from day one. Through open communication interfaces, our systems maintain live connectivity with the full airport ecosystem, including third-party platforms such as **AODB, DCS, BRS and FIDS**, ensuring that terminal expansions, new screening technologies or updated compliance requirements can be integrated without rebuilding the core logic. The result: a system that evolves with your operation, not against it.



Cyber-Physical Resilience – Beyond Basic Maintenance

5

THE GAP

Traditional maintenance focuses on mechanical wear (belts and bearings). However, the modern threat to continuity is a breach at the OT (Operational Technology) level.

THE INSIGHT

A BHS is a **networked asset**. A security breach in the airport's IT network should never be able to paralyze the physical movement of luggage.

THE IESYS SOLUTION

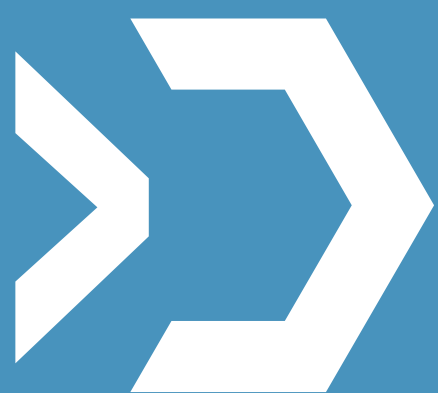
We integrate **Cyber-Resilience into Control Logic**. We design secure communication bridges and air-gapped layers between IT and OT environments. Our systems are built to stay operational and secure, ensuring that physical safety and data integrity are never compromised.



Engineering certainty isn't a coincidence, it's a deliberate choice in how you select your partners.

At **IESYS**, we believe that the most critical part of any infrastructure is the intelligence that connects it. From custom technical design to rigorous commissioning and modernization, we provide end-to-end professional services that transform challenges into progress.

This guide serves as your framework for evaluating the partners who will safeguard your operation's future. Whether you are upgrading your existing system or building a greenfield facility, your priority is the same: **Zero-fail operations**.



Start your journey toward a resilient system architecture.

Let's move beyond equipment. Let's build certainty.

[SCHEDULE A TECHNICAL AUDIT](#)

Click to book a 15-minute discovery call with an IESYS integrator

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