IBM Institute for Business Value quick read

Beyond the carousel
Better baggage handling through enhanced collaboration among airlines and airports

By 2020, the number of airline passengers is expected to double, soaring to an annual rate of over 7 billion worldwide. In addition, intensified security measures translate to more checked bags per passenger and a more complex baggage screening process. Together, these trends will push demand beyond the capacity of today’s baggage handling systems. A new baggage handling solution and new ways for airlines and airports to collaborate are vital to managing this urgent challenge.

The impact of errors and the cost of baggage handling
In Western Europe, Asia Pacific and North America, increasing airline passenger traffic will continue to push up baggage volume, further burdening already high peaks in baggage load each day, and making the current problems at hub airports even more acute. This growth leads to a boiling point expressed by a high IR rate, which measures the occurrence of baggage irregularities – defined as temporary misconnects and mishandled bags (including bags that are delayed or end up at the wrong destination).

Customers are also more dissatisfied; baggage now ranks second on the customer complaints list, and the ranking is likely to worsen due to limited baggage capacity in the coming years. Long baggage claim time, delayed flights and greater numbers of baggage problems are causing a ripple effect of failures in baggage handling. The effects of decreasing customer satisfaction also put future revenue at risk.

Ultimately, the question facing airlines and airports is: How can baggage handling be improved quickly in order to reduce costs while providing fewer lost bags and improving the customer experience (see Figure 1)?

Baggage handling in a changing world
Airlines and airports alike must think “beyond the carousel” and consider ways to change their approach to baggage handling so that they can stand out from the crowd. To do this, they must overcome several key trends, including:

- Lack of integration among information systems and processes
• Limited synchronization between workforce and systems
• Little collaboration among airlines and airports
• Mounting security needs
• Increasing competition among airlines and among airports.

The next generation baggage handling solution
How can airlines and airports prepare for the future flood of passengers and their baggage – not just cope, but also profit from the opportunity it brings? Above all, enhanced collaboration is essential. By 2010, industry leaders will need to have developed a new process that is shaped by shared responsibilities, standardization and joint IT investments. For both airlines and airports, the issue is how to align physical equipment and information sharing related to baggage handling with each other and with various stakeholders – passengers, customs, military police and security.

Innovative business concepts to improve baggage handling performance
We recommend the following:
• Collaborate with partners – First, the process of aligning long-term objectives needs to become more formal, particularly between airlines and airports, but also with suppliers. Common IT and communication standards are also needed between partners to enable continued harmonization of airline systems.
• Treat baggage handling as an end-to-end process – This will enable them to build businesses around their services with enabling physical assets. Due to easier connectivity with partners, airports can bring services to their customers, including baggage tracking and current security status.
• Leverage promising concepts and solutions – New ways of organizing the business and promising technologies can enable closer collaboration and a more holistic view of baggage handling, particularly Component Business Modeling (CBM), use of a Service-Oriented Architecture (SOA) and Radio Frequency Identification (RFID).
• Refine business models in innovative ways – For example, self-service baggage drop-off or the LCC’s model of separating bags from passengers (both physically and financially) to allow à la carte baggage handling.
• Integrate the workforce and baggage systems – To improve flexibility, workforce planning tools need to be better integrated with baggage handling systems.

Lowering the IR rate is a vital first step toward successfully managing the rising numbers of airline passengers as 2010 approaches. Continued failure to improve will likely result in a decline in airline and airport revenue. On the other hand, growth opportunities await those who meet the baggage handling challenge through new, collaborative business models and well-aligned technology that can not only help lower costs through improved efficiency, but also make the customer experience more pleasant.