Improving Baggage Tracking, Security and Customer Services with RFID in the Airline Industry

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Abstract

Radio frequency identification (RFID) has been identified as one of the ten greatest contributory technologies of the 21(st) Century. This technology has found a rapidly growing market, and an increasing variety of enterprises are employing RFID to improve the efficiency of their operations and to gain competitive advantage. In the aviation industry, major airports/airlines have been looking for the opportunity to adopt RFID in the area of baggage handling for a long time. Many pilot tests have been done at numerous US., European, and Hong Kong airports. RFID tags were found to be far more accurate than bar codes, and their performance was also measured to be well above that of bar codes. This paper presents the state of RFID adoption planning, architecture and implementation at a major airline, with a special focus on improved services due to improved baggage handling, on increased airport/airline security and on frequent flier program services. This is accomplished by integrating RFID technology together with networking and database technologies.