

## Finding Solutions to Information Technology Issues at Airports

The proliferation of information technology (IT) at airports over the past 25 years has created numerous opportunities and challenges. Perhaps the most significant challenge is helping airport leaders better understand IT and how IT can add value at all levels of the airport enterprise.

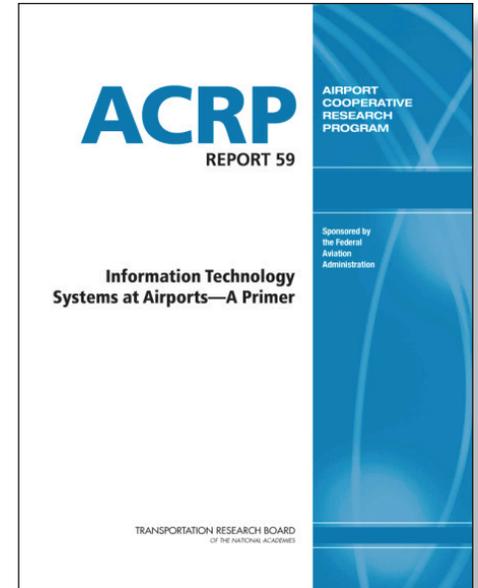
“Information technology needs to be integrated at the highest level of an airport organization,” said James Rockholt, director of information technology and telecommunications at the Tulsa International Airport. But how does an airport satisfy this challenge?

Airports need look no further than *ACRP Report 59: Information Technology Systems at Airports—A Primer*. Published in 2012, the publication targets chief executive officers, chief information officers, and other airport executive stakeholders with four primary purposes:

- Facilitate understanding of IT among airport executives.
- Help airport executives work together more effectively on IT projects.
- Ensure better performance and reliability of IT systems.
- Minimize cost overruns and delays during IT system implementation.

“There is no doubt about it; the recommendations in *ACRP Report 59* helped elevate the role of the chief information officer at our airport,” said Rockholt.

To help facilitate the understanding of IT among airport executives, the primer sets the stage by providing airport executives a basic definition of IT. According to the report, IT is “the study, design, development, implementation, support and management of computer-based information systems, particularly



software applications and computer hardware.”

Carl Remus, deputy director of administration and finance at Tulsa International Airport, recognizes the importance of this fundamental definition. “The backgrounds of many airport executives are in areas that have offered little exposure to the significance of information technology,” said Remus. “Additionally, many seasoned airport executives have not seen first-hand the strategic benefits of IT. For them, IT may represent nothing more than a desktop and email. Not only does *ACRP Report 59* provide a basic definition of IT, it also helps reinforce the need for IT to be viewed at the strategic level at airports.”

Dominic Nessi, former deputy director and chief information officer at Los Angeles World Airports (LAWA) and current senior technology advisor for



Above: IT is a core component of nearly all airport processes, supporting facility operations as well as tenants and customers from check-in to gate. *ACRP Report 59* provides guidance for airport executives and IT professionals to help tailor information systems and technology to best support a broad range of business services. Photos from Flickr courtesy of Travel Collector (left) and Sam Churchill (right).

Since 2006, an industry-driven, applied research program that develops near-term, practical solutions to problems faced by airport operators.

## Information Technology Systems at Airports—continued

Burns Engineering, also praises *ACRP Report 59*. “This report is the premier example of codifying the best practices throughout the information technology industry into a single document with airport professionals as the target market,” Nessi stated. “Whether our IT strategic plan, our strong IT governance processes, or helping secure our reputation as having the best cyber security of any airport in the world, *ACRP Report 59* guided everything we did at LAWA.”

One of the components of the report particularly beneficial to Rockholt and Remus at Tulsa International are the “assessment tools.” These simple to use, easily understood, and easily implementable tools provide airport executives:

- A process for valuing IT systems;
- A process for documenting system benefits;
- The ability to determine total lifecycle costs; and
- A cost–benefit analysis.

At Tulsa International Airport, these tools have helped produce several specific benefits:

- \$235,000 in annual savings as a result of purchasing a new phone system recommended by the IT department. Through an enterprise-wide assessment of the airport’s phone communications, the IT department identified old and obsolete circuits required for crash phones, some phone lines, and

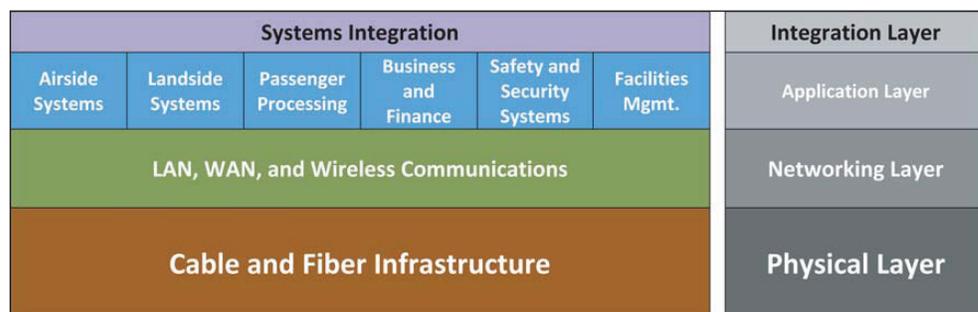
radio base connections that were eliminated by switching to a new system which uses newer and lower-cost technologies.

- Elevated the awareness of cyber security. The airport now identifies and evaluates cyber security opportunities during the project implementation or construction phases, not after the fact.
- Increased understanding of the strategic significance of IT across the enterprise. There is increased support for making financial investments in IT. According to Remus, “It is 1,000 times easier now to purchase IT equipment and software.”
- Increased efficiency. Because of centralized planning, budgeting, and purchasing, the IT department can directly make all purchases it believes is best for the airport as a whole, not based off another department’s single point of view. With all purchases going through IT, the possibility of redundant purchases being made by different departments has been eliminated.
- New cabling within the concourse. IT can better control cabling throughout the airport between tenants to provide what they need without running out of space for cabling.

Implementation of the findings in *ACRP Report 59* also produced intangible results at Tulsa International. A notable result identified by Rockholt is how

In today’s airports, IT is a core component of all systems. *ACRP Report 59* is a user-friendly tool to help airport executives and IT professionals:

- Identify and communicate effectively regarding common IT issues.
- Articulate sound IT principles for implementing IT systems.
- Implement a standard IT system lifecycle process for their airport.
- Effectively describe the benefits and value of IT systems when formulating airport strategic goals and making financial investment decisions.
- Understand the fundamental architecture concepts of IT systems.



Above: Figure from *ACRP Report 59* illustrating the conceptual categories and layered architecture of an airport IT system. The report describes how the systems of one layer act as a building block for the systems in the next layer, and provides a common understanding of airport IT system architecture and terminology.

application of the assessment tools included in the report helped him and his fellow IT colleagues better understand what’s in the mind of the airport CEO.

Subsequently, Rockholt and his colleagues are better positioned to make the business case for IT. “We have integrated IT within every department at Tulsa International,” Rockholt stated. The tools and findings in *ACRP Report 59* help me make my case for IT investments that impact multiple departments.”

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