



Airport IT – Finding the Cost and Service Balance



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Overview

Airports are continually searching for ways to differentiate themselves and better compete for passenger and airline business. Passengers and airlines consider a variety of factors in choosing a facility. Is there easy access to parking and passenger drop off at the airport? Is check-in a smooth process and hassle free? How long does it take to get through security? Are the airport gates dedicated or common use? Is baggage claim a smooth process? The investments and decisions an airport makes affect the passenger experience and determine who will use the airport. Among these investments, there is one that airports depend on for many functions of the airport: information technology (IT). Interaction with technology influences the passenger experience and airport efficiency at every step. Technology plays a role in:

- airport management
- partnerships with the airlines
- simplified passenger travel.

The challenge is to find a business approach to IT that balances the underlying needs of passengers while meeting the business and financial needs of airlines and airport management.

Protecting IT investments

IT is one of the keys to meeting the needs of airport customers, and new platforms are being developed all the time to achieve this goal. However, often the airport faces the conflicting priorities of evolving their business models with new equipment and technologies while continuing to offer services on their current IT infrastructures.

Like a number of other businesses, many airports have updated their IT systems slowly over time. When a need arises, they find a solution and fit it into the existing infrastructure. Support for this patched-in system is provided either by the software company or the business that is offering the IT service. As a result, the support infrastructure may become highly compartmentalized and very difficult to manage over time. For an airport to maintain or even gain a competitive edge it must develop and implement a technology plan that::

- Evaluate the current IT infrastructure and corresponding support mechanisms
- Outline what they want the IT infrastructure to deliver
- Integrate the IT strategy with the business strategy.

The planning process

The first step to evolving the IT infrastructure is to determine what IT functions are currently being used and what IT functions are on the horizon. The goal of this evaluation is to create an IT plan that maps into the airport's short-term and long-term business plan.

Once an IT plan is agreed upon, an assessment must be done on the current technical support models in play. Typically, airports have multiple service providers performing various IT functions to meet the needs of the airport. Thus an assessment of the overall services provided and utilized at an airport would look similar to figure 1, where there is either a separate system and/service provider being used for each function at the airport. For example the FIDS system is separate from the baggage check-in system, which is separate from the parking system, and the service providers vary as well.

One advantage of separate systems is they are supported by subject matter experts and it is possible to get the best in class support for each system. The downsides, however, include the high costs of maintaining and managing multiple separate systems as well as redundancies and fragmentation due to multiple trouble ticketing, support and asset management systems. Thus, it is beneficial to airports to determine areas where integration can take place and cost savings can be realized.

Integration can be either at a technical level or a process level. As seen in figure 2, the number of service providers and technical operations are reduced through the removal of duplicate support efforts. This creates efficiencies that produce cost reductions and better service delivery. Given that airports have a unique IT structure and set of systems, each airport can perform an analysis to confirm the cost savings and service benefits of consolidation.



Figure 1: Multiple Service Providers



Figure 2: Consolidation of Service Providers

Strategies for IT consolidation, migration and support

Once the airport determines the benefits of consolidating services at an implementation and process level, it is necessary to assess the functions required for successful implementation:

- Service Strategy
- Service Operation
- Service Transition
- Service Improvement

There are three options available to implement the above functions:

1. All functions owned, operated and maintained internally by the airport.
2. Outsource specific functions, but have the airport maintain overall control.
3. Engage a Service Provider and migrate to a partnering relationship.

All three options are used in the industry today. However, there is a strong case for moving away from an internally operated IT model (Option 1). There are many airports that outsource pieces of their work (Option 2) because of cost efficiencies. However, it is most efficient and strategically advantageous to go one step further and work closely with a service provider to create a partnering relationship (Option 3). The benefits of this relationship include:

- Economies of scale create cost savings – one service team supporting multiple systems.
- Access to a wide spectrum of knowledge – resources with a broad knowledge base improves planning, implementation and operations.
- Increased accountability – complete ownership of issues, which leads to improved system performance.
- Access to scalable resources with industry expertise – when needed, an airport has the ability to quickly add certified personnel.
- Airport staff can focus on core business – by utilizing personnel from the service provider, the airport staff is available to work on airport business – not IT system support.



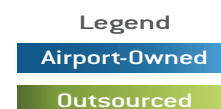
Option 1
Airport owned, operated, maintained



Option 2
Airport owned, with specific functions outsourced



Option 3
Service Partner Relationship



Information Technology Infrastructure Library (ITIL) is a public framework that identifies best practices of supporting and governing Information Technology. ITIL consists of five books that focus on service lifecycle management. Some relevant components to airports include:

Service Desk

A single point of contact between users and IT management. The primary functions of a service desk are incident control, life cycle management and communications with the customer.

Knowledge Management System

Strategies used to identify ways of learning from previous experiences, thus minimizing repeat incidents. This is done by determining methods and procedures to share insights and experiences previously learned so they do not have to be relearned causing an increase in cost of support.

SLA Management Tools

A minimum level of service required stated in a contract, typically referenced by a percentage. The different areas of service typically specified include Mean time between failures (MTBF), Mean time to repair (MTTR) and an agreed level of minimum service availability.

What to look for in a service partner

When searching for a service provider, the airport should look for one that follows Information Technology Infrastructure Library (ITIL) best practices. ITIL is widely accepted as the standard for best practices of supporting and governing IT, resulting in:

- Increased customer satisfaction, both passenger and airline customer
- Improved IT availability, enabling instant access to critical information, such as passenger counts
- Reduced cost by reducing rework and lost time and enabling better resource management.
- Decreased time to market for new technologies (e.g. full body scans)
- Enabling faster, better-informed decisions based on readily available data

ITIL has many components, but there are a number of functions that are most critical to airports' unique operational environment.

Key components that the airport should ensure the service provider offer include:

- Service Desk
- Knowledge Management System
- SLA Management Tools
- IMAC Management Tools
- Integrated Asset Management
- Business Continuity
- Governance

Conclusion

As airports strive to work more efficiently and maintain competitiveness, IT infrastructure must be considered. The organization should create an IT plan that balances the passenger experience with the business needs of the airport. This plan must integrate the information technology strategy into the business strategy so that airports meet their short (current infrastructure) and long (new technologies) term goals. This plan should include an assessment of the current IT model, systems and providers and explore opportunities for integration in order to create efficiencies.

The airport has several options to achieve efficiencies with integration and one is to engage in a partnering relationship with a service provider. Airports that want to capitalize on technology and support should consider engaging service providers that follow Information Technology Infrastructure Library (ITIL) best practices. This will allow opportunities for acquiring new services, new solutions and best practices that would be too difficult, costly or time consuming to develop in-house.

IMAC Management Tools

A process of controlling installs, moves, adds and changes (IMAC) to the infrastructure with a controlled process. The IMAC tools enable these changes to be done with minimal disruption to the network.

Integrated Asset Management

A systematic approach to managing assets (people, software, processes and technology) so they can be tracked and evaluated. The benefits are a reduction of IT expenditures.

Business Continuity

A process by which plans are put in place to ensure IT services can be recovered should a serious incident occur. The plan has both a proactive and reactive component making it less likely a disaster would occur at the first instance of failure.

Governance

A Program Management Office (PMO) has the responsibility to balance business strategies with the IT portfolio and separate them into three areas (programs, projects and tasks). Once the processes and procedures are identified and classified, these can be governed by the PMO.



170 Jennifer Road, Suite 200
Annapolis, MD 21401 USA

Tel: 866.440.7202
amssales@arinc.com