KPMG

cutting through complexity

Revenue accounting outsourcing market analysis

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I. Key takeaways

- In the next five years, outsourced solutions will absorb the lion's share of new revenue accounting implementations.
- Smaller airlines will lead the way in moving towards outsourced revenue accounting systems.
- Large airlines in North America and Europe are generally satisfied with their in-house systems, but some will soon begin transitioning to outsourcing solutions since their legacy systems are no longer able to handle increasingly complex processes.
- New processes and cloud-based platforms are necessary to move large carriers away from legacy systems.
- Revenue accounting is becoming a strategic function in managing the overall business as airlines move to à la carte pricing and revenue recognition standards incorporate point-of-sale settlements.

II. Overall market maturity

The airline industry has become increasingly complex over the past several years, a pressure felt most acutely in revenue accounting departments. Not only is airline revenue accounting already the most complex form of accounting, but it is also made even more complicated by old, legacy systems and changes in the overall airline industry. Many airlines have decided to outsource some functions previously held in-house to gain access to more sophisticated solutions and better respond to industry fluctuations.

Overall airline industry trends affecting revenue accounting

- Changing regulation and standards
- Competition, particularly from an increasing number of low-cost carriers
- Profitability concerns and the need to reduce operational costs
- Improvements in technology
- Desire to provide real-time information across the entire value chain

When looking at types of revenue systems used by airlines around the world, national origin, size, and age help explain how the market is segmented. European carriers of all sizes have, for the most part, already outsourced their systems to third-party providers. On the other hand, large North American and Asia Pacific carriers still maintain in-house revenue accounting systems. Smaller airlines and new entrants in North America and Asia Pacific have generally outsourced large parts of their revenue accounting systems by either starting with an outsourcing provider or migrating after three or four years of operation.

Examples of airlines on legacy systems

North American:	Asia Pacific:
• American Airlines	• Cathay Pacific
• Delta Airlines	• Qantas Airlines
• US Air	• Singapore Airlines

While there has been an apparent need for upgrading revenue accounting systems for the last half decade, the investment appetite for airlines has been sluggish, especially given the recent economic environment. Lack of both OpEx and CapEx dollars has made it difficult for older, established airlines to replace or upgrade their legacy platforms. These systems, many of which were developed internally by each carrier, are people-intensive and lack automation. In general, large global airlines have chosen to retain their legacy revenue accounting systems, upgrading and adding new capabilities as needed. Some of the hindrances to move off legacy systems include the complexity to migrate from existing systems and constraints from an internal labor standpoint that restrict the move to outsourcing.

Labor laws are also one of the major considerations for changing the airline's current operations. Carriers operating in regions such as Asia or South Africa, which have a flexible mix of labor and legal laws, would tend to move towards outsourcing faster than those located in regions with more restrictive labor legislations, particularly Europe.

Small, mid-sized, and new carriers have less complex needs, limited CapEx budgets, and less sophisticated IT departments. As a result, it is increasingly becoming the norm to outsource revenue accounting to a third-party provider. Many new carriers (Virgin, JetBlue, for example) have leapfrogged old technology and processes by outsourcing large parts of the revenue accounting operation.

The market for revenue accounting outsourcing solutions continues to grow positively. The International Air Transport Association (IATA) counts 240 airlines as members, about 84 percent of total air traffic. Approximately 25 percent of their members are low-cost airlines.

Currently, there are around 50 carriers with outsourced revenue systems, leaving 200 to 250 as potential targets for outsourcing. It is estimated that annually, 10–15 carriers outsource all or part of their revenue accounting systems. With well over 50 percent of the market working on a legacy platform, there is a large opportunity for outsourcing among large carriers particularly in North American and Asia Pacific regions with specific segment opportunity in Europe, especially among emerging carriers.

"Irrespective of the size of the airline—whether you are a small airline or a huge American airline—if you are a network airline, you need to have one system that covers all your needs. You need a huge system and you constantly need to add to it."

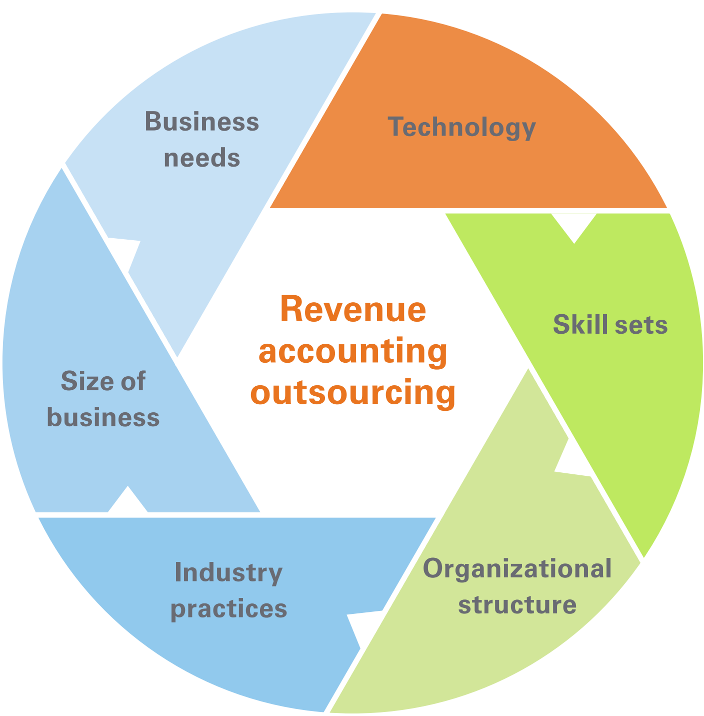
Revenue Accounting Manager,
Midsized European Airline

III. Triggers and drivers

Airlines that choose to become more efficient and profitable by outsourcing revenue accounting are typically driven by more than one of the following factors:

- Shifts in industry practices or internal organizational structure
- Need to acquire new skill sets
- Limited technology capability or capacity
- Size and complexity of business increases beyond current infrastructure

> *"Macro trends drive carriers to outsource. For example, alliances (when airlines coordinate fares), regulation, and trade agreements are some of the elements that force airlines to reassess their current systems and seek outside solutions."*
>
> ***Team Leader, Multinational IT Services and Business Solution and Consulting Company***



Shifts in industry practices or internal organizational structure
Organizational restructuring also drives many carriers to seek third-party outsourcing, especially when a company is redirected to a new brand or is newly recovered from bankruptcy. During bankruptcy, loss of talent makes it impossible to continue with highly manual internal processes. The stage of restarting the organization and building the team takes more time and is costlier than outsourcing.

In a company buyout, new owners prefer to outsource functions in order to gain more transparency and clarity. A number of major airlines that have moved to revenue accounting outsourcing usually ask a third party to find and fix system gaps, leakages, and loopholes as part of the overall restructuring of their financial accounting function. There is a firm belief by management that outsourcing provides companies with opportunities to upgrade technology faster and less expensively (by a factor of 2 to 3x) than deploying in-house processes. This leapfrog is shared by new entrants as well.

The increasing complexity of inter-airlines transactions also drives carriers to form alliances. The need for a continuous flow and availability of information such as fares, trade agreements, and other macroeconomic factors grows. Most airlines, which run around documented knowledge, will not adopt a new platform on their own but will consider once their alliance moves.

"Alliances are changing and new markets are emerging. Emerging carriers are forcing all airlines to build alliances… Alliances formed are not platform-specific but more on the way of information and domestic networks in the region. Alliances are driving the need for more information and the requirement for new platforms."

Team Leader, Multinational IT Services and Business Solution and Consulting Company

Need to acquire new skill sets

Revenue accounting is often cited as the most complex form of accounting. Not only does a company need sharp minds to oversee such complex transactions, but it also requires skilled talent to process transactions quickly in order to better manage cash flow and plan ahead. However, due to cutbacks in the airline industry over the last five to ten years, the talent pool and management expertise to build an organization became limited. Some airlines choose to outsource in order to avoid finding and training a large, educated staff.

"The switch towards Mercator is driven by the need for a mix of physical resources—people and technology that we didn't have. Revenue accounting is one of the most complex forms of accounting and by outsourcing we benefit from the knowledge base that our company didn't have."

Manager, Revenue Accounting, American Low-Cost Airline

Managing an internal platform also requires IT staff who can support the interface consistently and reliably as well as continue developing new applications. Yet the cutbacks also hit the IT side of the house. With fewer IT staff and increasingly attractive outsourced options, maintaining in-house revenue accounting systems becomes problematic and unnecessary.

However, in some specific cases—particularly among larger, older airlines—it is impossible to reduce staff due to union contracts or political repercussions. In these cases, some carriers are adding outsourced services in small chunks over time as their employees retire.

Many airlines, particularly small and mid-sized ones, have decided that it makes more sense to outsource to supplement an internal skill set gap. They believe that the third party has a larger talent pool, more in-house expertise, the ability to offer advice on best practices, and cheaper systems and support due to their focus and scale.

Limited technology capability or capacity

Many airlines, especially small and mid-size carriers, do not have the proper means to continuously invest and upgrade revenue accounting systems. Doing so in-house requires a larger investment and long trial periods those carriers cannot afford. Partnering with outsourcers can provide them with the much-needed technology capability and capacity when, for example, they roll out new services and manage à la carte pricing.

"Very likely, more often than not, smaller airlines would outsource than larger airlines. This is because, number one, it requires deep and in-depth knowledge of industry use to price and rubric particular as we could be dealing with thousands of tickets every month. This is one problem where you have got to have technology. So you must have a pretty decent technology to own this process."

Head, Travel Solutions & Strategy, Technology and Analytics Enabled Business Process Outsourcing Enterprise

Larger airlines with more complex business models will also likely encounter similar problems. However, some will continue to retain legacy systems as long as possible because they have already invested significant time, treasure, and talent. These carriers often develop and retain their own revenue accounting, inventory, ticketing, and reservation systems. Yet over the long run, application development may not be possible due to changing business and regulatory environments, updated standards, new fare schedules, and more sophisticated interline settlement processes, for example.

Size and complexity of business increases beyond current infrastructure

Naturally, the need for any system or process, including an outsourced solution, varies according to the business needs of a company. When a company's needs are no longer being met, then an alternative solution will be investigated. For airlines, the size and complexity its business drive the need for an outsourced revenue accounting solution in multiple ways:

- **Operational complexity:** Low-cost, point-to-point airlines are far less likely to need a robust system capable of handling multiple, simultaneous processes automatically; large or fast-growing airlines not only require robust, automated systems, but they also need systems that will integrate changes and allow growth.

- **Size-cost ratio:** Large airlines that have heavily invested in legacy systems over the years have a higher tipping point than their smaller counterparts. Those who have decided to outsource early in the history of their airlines cite savings of 25 to 30 percent, compared to running legacy systems (for both exception processing and routine operations).
- **Interline settlement:** For large airlines, 20 percent of revenues are generated through complicated interline transactions.
- **Overall growth:** Passenger growth among mid-sized airlines is expanding at the rate of 20 to 25 percent annually. These emerging airlines need flexible and quickly scalable systems and processes as they grow, something that outsourcing is better equipped to provide. In many cases, accelerating cash flow and reducing the number of accounting errors can justify the implementation of a new outsourced solution.
- **Data and better clarity in decisions:** Complex operations often lead to opaque information, and when this happens, the decision is often to outsource. By outsourcing low-level revenue accounting needs, many airlines have been able to use internal staff to analyze complex data trends in order to make better decisions about the business.

"It was not IT or infrastructure that was driving this system upgrade, but the accounting requirements of a market that had changed a lot. If you're a smaller airline or a low-cost airline with no interline department (meaning, you don't offer tickets on another airline's flights and you don't accept passengers from another airline), then it's not going to be so complicated. In that case IT is probably going to be the driver, because the revenue accounting department will be quite small."

Director of Passenger Revenue Large European Airline

"The industry is more demanding in terms of flexibility and new business requirements. In 1970, carriers were scarce and managed their own markets. They did not compete against one another. In the current industry, you have to pay attention to e-freight, e-ticket and interline business. All the changes that airlines adopted mean changing revenue accounting, the core part of the money cycle."

Head of Airlines Business for Europe, Asia Pac, Africa and Middle East, Indra Company

"If you talk to the CFO level, the main drivers are reducing cost and complexity and maintaining accounting accuracy as well as management and the use of data that can be derived from a revenue accounting process. In an airline perspective, I think most of them are starting to think of getting rid of their internal systems and buying a standard system from other parties, where outsourcing makes more sense."

Director, Airline Industry Trade Association

IV. Full revenue accounting outsourcing model

When a company outsources all of its revenue accounting systems, the third-party provider supplies the technology, process, and people. The information is managed in the outsourcing provider's data center. Carriers pay for services rendered, which can be computed as either price per transaction or price per passenger.

Full revenue accounting outsourcing is most common among small and mid-sized carriers since their limited resources do not allow them to manage multiple vendors. The outsourcing provider offers a one-stop shop for all of their revenue accounting needs, flexibility according to their business needs, and a continually updated system to stay competitive. Because small and mid-sized airlines lack the resources of larger airlines, the full outsourcing provider significantly helps these airlines overcome internal capability gaps in staff and technology.

"Large airlines see PRA Outsourcing as a critical step for change management. BPO business case and system transformation fits in easily because total cost of ownership is lower. The pain of system transformation is gone because steps are being managed for you. It's lift and replace. Not much training needs to take place within an airline to manage system change."

Corporate SVP, Operations, and Head of Travel Practice, WNS Holdings

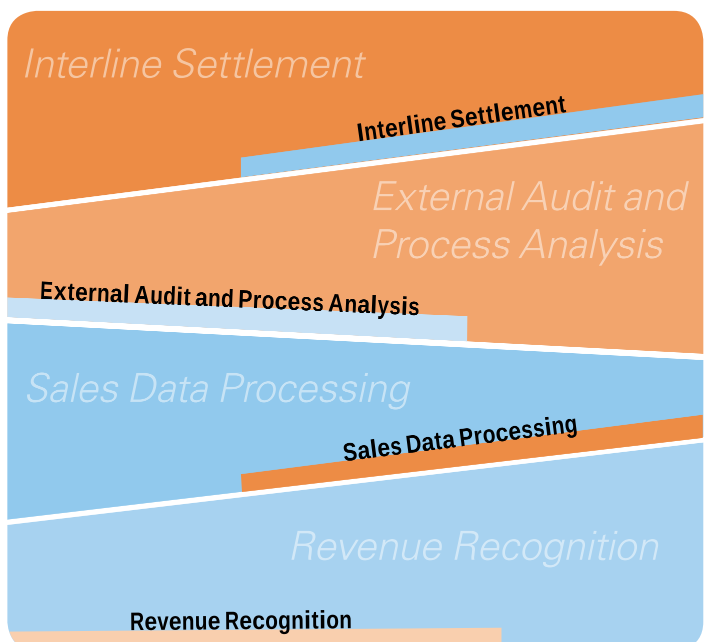
V. Partial revenue accounting outsourcing model

In a partial revenue accounting outsourcing model, the large or mid-sized carrier contracts with several vendors and outsources all or parts of the process. Carriers will most often outsource labor-intensive BPO work to outsource providers, while retaining internal staff to handle exceptions, conduct data analysis, and anticipate future upgrade needs.

> *"Large carriers want to ensure they are able to select Best in Breed solutions and while they may choose a single provider for a primary system, they are likely to select multiple vendors for different BPO options, e.g., Refunds, Interline Audits or Fare/Commission Audits."*
>
> ***Consultant, MCB Consulting***

Airlines generally choose to either retain the core functions in-house and outsource nonstandard functions or outsource the core functions and keep the nonstandard or value-added functions in-house. Newer carriers like Jet Blue and Virgin America that have more streamlined processes and operations are more likely to outsource the core part of their revenue accounting systems and retain the nonstandard processes in-house. On the other hand, legacy carriers outsource nonstandard functions to companies that specialize in these services.

Services most likely to be outsourced
Revenue accounting outsourcers usually handle the following functions in a partial revenue accounting outsourcing solution:



Interline Settlement

The interline business is one of the most important factors to consider for outsourcing. IATA strictly governs and defines revenue accounting principles because process and revenue are dependent on the pricing accuracy of the tickets.

Carriers most often outsource the interline transaction processing when it becomes 20 to 30 percent of revenue. Such a large volume of interline transactions becomes almost unmanageable for airlines to process internally, especially since these transactions need to be audited by an external source.

"That's what you outsource—all the labor-intensive work that the system can't handle automatically."

Director of Passenger Revenue Accounting, Large European Airline

"Today, in terms of audit, there are approximately 100 airlines that have outsourced the audit function. And this trend is growing. More and more airlines are also outsourcing the interline process itself."

Head, Travel Solutions & Strategy, Technology and Analytics Enabled Business Process Outsourcing Enterprise

EXTERNAL AUDIT AND PROCESS ANALYSIS

Another commonly outsourced function is the auditing services, which require carriers to create clearly defined parameters where outsourcers can work. From these set limitations, the outsourcers can determine factors that weaken the revenue and propose recommendations as to how to solve the problem. Through this process, the outsourcing providers can also gauge the effectiveness and reliability of the existing revenue accounting system or process.

"To give you an example, we are working for a big European airline. The process is typical: document the process, follow the process and so on. For interline and audit, our teams identified loopholes for areas that were not being tracked and made corrections to enhance and protect revenue, creating a more effective system and process for our client."

Corporate SVP, Operations, and Head of Travel Practice, WNS Holdings

SALES DATA PROCESSING AND REVENUE RECOGNITION

Carriers also outsource the sales data processing and revenue recognition functions. Airlines must ensure that partners sell their tickets at the correct price and remit the money to them promptly. They also need to ensure that the appropriate amount of taxes has been paid accurately.

Service and platform providers such as Sutherland and TCS have started offering bundled services to address the revenue accounting services needs of this segment. New platforms and outsourcing services have been introduced to offer significant cost reduction and productivity benefits (for example, faster revenue accrual based time of sales versus events).

"Alliances were forged between service and platform providers and they have started offering bundled services to compete in the space. This makes it easier for the customers."

Team Leader, Multinational IT Services and Business Solution and Consulting Company

Value and benefits of outsourced services

"In our case it wasn't so much cost that drove us to outsourcing; it was the lack of resources in-house. In this market where we operate, we have relatively low labor costs, but it is still beneficial for us to outsource."

Revenue Accounting Manager, Midsized European Airline

Companies generally use outsourcing services to cut costs and increase profitability. Outsourced solutions also accelerate cash flow by accounting for transactions at point-of-sale, an ongoing benefit that legacy systems are often not equipped to handle.

Aside from the financial and accounting process benefits, companies reap more benefits than just a reduced cost from outsourcing. They have access to skilled talent, advanced technology, and platforms with better risk management profiles. Additional benefits from revenue accounting outsourcing include:

- Fraud avoidance and precise invoicing
- Labor avoidance and capital reduction
- IT cost savings
- Accelerated book closing
- Monitored sales promotion
- Revenue optimization per flight
- Daily revenue reporting
- Flexible reporting
- Other accounting and financial reporting integration

"We are a young and rapidly growing airline so we decided to outsource almost all of our revenue accounting processing. With our current size and complexity, using e-rev probably shaves off five days. We have a five-day close so I can't imagine how we would function if we had to do it all manually."

Director of Revenue Accounting and Analysis, United States–based Airline

Many airlines indicated that moving from a legacy platform to an outsourced service cut in half the number of days to close the books. Considering the complexity of matching and balancing multiple transactions, it will be very difficult for an airline company to handle everything manually.

Building a platform in-house is also more costly than outsourcing the service. If airlines decided to build their own systems, it would take 12 to 18 months from the initial decision to final launch. On the other hand, an outsourced service takes roughly four to six months to make the whole system operational.

"With a good outsourcing partner, you move to a new level. There should be added value to the revenue accounting coming from your outsourcing party. They become the specialists, not just general specialists, but specific to your company and your requirements. So they will come up with proposals of how to improve processes or to make changes in the IT system, etc. We even have clauses in our contracts, offering certain amounts of money for good ideas for improvements, etc."

Director of Passenger Revenue Accounting, Large European Airline

Furthermore, outsourcing the most labor-intensive functions and complicated business processes will allow carriers to focus on specialized, higher-value pieces of the business, such as data analysis.

Captive solutions versus outsourced services

"Based on my observation, captives are able to drive the kind of efficiency that typical third parties are able to do."

Corporate SVP, Operations, and Head of Travel Practice, WNS Holdings

Managing a technology platform in a captive environment, even in a low-cost country, entails higher start-up costs as a result of needing to retain high-skilled employees. The total start-up cost in a captive environment which is usually 10 percent higher is bound to increase 25 percent in five years' time. Furthermore, managing continuous improvement projects in a captive environment can be difficult.

VI. Best practices for deployment

Open communication between outsourcers and airline companies is vital for the implementation of the system. Outsourcing providers need important information, such as passenger volume of airlines, to develop a model that is well-suited to their client's needs. During the first years of outsourcing, carriers and vendors move from an employer-client mind-set to a partnership mind-set that discusses everything. These outsourcers are now considered the specialists.

"Once you made your decision it's all about working with them. You need open lines of communication. And this, in the beginning, is a lot of work that we have to put in, for the selection process, but also for the first months and even years of collaboration."

Revenue Accounting Manager, Midsized European Airline

"You know it's still the old questions that have always been there with outsourcing that you need to keep in mind: culture and language."

Director of Passenger Revenue Accounting, Major European Carrier

VII. Future of revenue accounting outsourcing

With a number of carriers looking for an efficient way to manage their business and reduce cost, the demand for a revenue accounting outsourcing solution will likely grow at a rate of 25 percent per year for the next five years.

"IT will play a very important role, but it will remain a labor-intensive job. You will always have to keep some processes very close to your chest, especially the monitoring and control of the outsourcing party. IT can solve a lot but not everything."

Director of Passenger Revenue Accounting, Large European Airline

"Every year, we see four to five new airlines looking for outsourcing options. I would probably say that four out of five are technology-led, while the rest are likely to have their own technology. Every year, we also see about eight to ten opportunities for partial outsourcing, like sales audit, and interline processing. With those they expect the vendor to bring the technology."

Head, Travel Solutions & Strategy, Technology and Analytics Enabled Business Process Outsourcing Enterprise

Future trends include:

- About 30 percent of the carriers are driven to outsourcing by acquisition and financial reorganization. The remaining 70 percent claims to increase efficiency and cut costs.
- Offshoring is a growing trend particularly in Europe where carriers are restricted by tight labor laws.
- Airlines are leaning towards remote access as it is easier to deal with all system changes if the platform is not managed in-house. Using remote access will likely also limit possibilities of system errors as companies no longer have to deal with matters of harmonizing times.
- The need for an advanced level of technology drives carriers to outsource revenue accounting solutions. The demand of airlines for technology is limited to not only functions, such as sales audit and interline processing, but also the kind of technology to be utilized to reduce manual operations.
- A cloud system will likely further trigger more outsourcing services. It will be easier for airlines to host data in one central location. At the same time, carriers globally can access the same database and similar application, providing more standardization in accounting process.
- IATA drives carriers to move into Electronic Miscellaneous Document (EMD), which can help revamp existing revenue systems. The organization is also investing heavily in initiatives that will effectively limit revenue accounting, bring back the function to finance, and eliminate all processing that does not add value to the airlines.

VIII. Case study: A mid-size United States–based airline

A U.S.-based mid-sized airline with brand-new planes, competitive fares, top-notch guest service, and a host of innovative amenities was launched in 2007. The Company's goal was to disrupt the U.S. domestic airline industry through hypercompetition. The airline differentiates its services from other carriers, incorporating the elements of design, technology, and music to make a customer experience. Since it was launched, the Company has created more than 2,500 new jobs and has swept the major travel industry "best in class" awards for the quality of its guest services.

> *"eRev is more of a processor. They pull in all data and run everything for us. There is a series of entries that they prepared for us during monthly closing. There are also data that they prepare and reports that we pull down with our own analysis, so we can do our own entries. I guess on some level, it's some kind of a hybrid system from that standpoint."*
>
> ***Director of Revenue Accounting and Analysis, United States–based Airline***

The increase in passenger volume and expansion of the distribution network resulted in a lot of complexities that it could no longer handle on its own. This is the time when the Company moved to eRev, an outsourced system provided by Rene Perez & Associates. eRev enables airlines to be more streamlined and efficient. It is fully automated, which means airlines receive up-to-the-minute data electronically.

eRev does all the processing and matching of data. However, for interline settlements, the provider does not have this expertise, as it generally works with much smaller carriers that do not have interline agreements. The Company had to provide guidance in terms of understanding the files, how things came through the system, the difference between the marketing and upgrading carriers, as well as fixed versus local rates.

The size and nature of the business have changed significantly since the Company decided to move to the eRev system. eRev takes only five days to close the books, but with the legacy system and in-house team, it would take 8 to 10 days to complete. The eRev system also handles revenue recovery, credit card billing, and award billing. Though a sound system that captures 98 to 99 percent of all transactions, not everything matches up, so the Company still processes exceptions manually.

When new processes are needed, the Company team coordinates with eRev to write the code. The data server resides within the Company, but the outsourcing staff that facilitate and handle the system are based in Miami. The provider bills the Company on a monthly basis per passenger.

This move to an outsourced system is not a full IT migration, but rather a transformative step that the Company decided to take. At the time of upgrade, there was not enough time and resources to do the full migration. Whenever there are new processes or systems that need to be addressed, it usually takes months or maybe a year to get them coded and tested before they are actually implemented. Take note that this is not an entire new system but just a new application for upgrade. An example would be Sabre, the Company's legacy reservation platform. Whenever there is anything that the team does in relation to Sabre, all data should feed in, including the new eRev system. When Sabre was linked to eRev, the provider set up all the links and made sure that everything is feeding in correctly, which in turn, it was not. Thus, the team had to flip the switch and there were problems that arose for months. This case only shows that for a new system to really work out, it would definitely take some time.

The Revenue Accounting and Analysis director said that the decision to outsource the revenue accounting system was driven by the age of the airline and not entirely by the size of the carriers. New airlines need to get things up and move quickly, so they are more likely to get involved with a third-party provider. For older carriers that have already made significant investments in their systems, the incremental cost of upgrading is smaller. It could be a long line if they would like to get to a third party, but it would just be some sort of undertaking to unwind their in-house system.

"If for example, we are still doing things in-house and the level of complexity we have now versus when we made the move to eRev, it would be a much harder transition now that it was then."

Director of Revenue Accounting and Analysis, United States–based Airline

In the next five years or so, the Company will need to get a cleaner or better process with eRev, or it might need to move on to another provider that can handle some of the complexity. It is because currently, the team runs in things that the provider is not familiar with, such as the Interline Settlement. The nature of how the Company generates revenue will get more complex over time, so it is either the current provider will invest on their end or the Company will need to go to somebody else who can handle the difficulty.

"I don't necessarily see us building something in-house," the director of Revenue Accounting and Analysis said.

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Contact us

Don Ryan
Director
Shared Services & Outsourcing Advisory
donaldryan@kpmg.com

kpmg.com