AEROMEXICO FLIES TO THE CLOUD TO IMPROVE AGILITY

Aeromexico is Mexico's global airline and a leader in Latin American aviation. Sadly, we usually think of airline IT infrastructure only when stranded at an airport. However, the challenges facing Aeromexico are no different from those of established companies in other industries, except for maybe inclement weather.

Fernando Rocha, Vice President of IT and CIO, Aeromexico
Source: Infosys

I recently spoke with Fernando Rocha, vice president of IT and CIO at Aeromexico, along with the airline's integration partner, Infosys, about the process of moving and modernizing critical applications to the cloud while delivering better customer experience, more innovation and a stream of operational efficiencies. The balancing act of modernizing IT while continuing to conduct business and meet customer demands is no easy task, and I was keen to understand how the two companies had cracked the code.

A HODGEPODGE OF IT AMASSED OVER DECADES

The business imperative facing Aeromexico was to differentiate its service through a world-class online experience in the face of fierce competition, particularly from budget airlines. Rocha was called upon to radically overhaul the entire application ecosystem while maintaining security and uptime to achieve business objectives.

Historically, Aeromexico had a very decentralized approach to IT solutions. Multiple teams were developing solutions without any enterprise alignment whatsoever. Over time, the result was significant complexity, with hundreds of solutions running on different technologies and architectures. The task for Rocha and his team was to standardize and automate as much as possible while making the IT environment modular and microservices-oriented.

The immediate need was to install an architectural framework to standardize the development process. Infosys assessed the situation and built a new enterprise framework to enforce standardization moving forward. Not surprisingly, the business side was not entirely receptive to this initiative. Even though a simpler architecture makes complete sense in concept, it is difficult for business units to truly understand the importance of this because they are isolated from the complexity that IT must deal with every day.

Rocha used a simple analogy to communicate the needed change: "What if we built houses, and each house had different voltage, pipes, doors and windows? In this scenario, building houses would be slow and complex, with connectors between the houses [needed] to function. It becomes not only inefficient but also slow." To continue the analogy, while the airline states which houses need to be built, it's Infosys that defines the building codes within the architectural framework.

THE CHOICE OF STRATEGIC PARTNER

Aeromexico lacked the knowledge and skills to drive modernization by itself, so the company sought help. After talking with several potential partners, the airline chose Infosys primarily because of a "good alignment in terms of vision and a partnership where both companies can benefit." This is something that I have heard often from customers who partner with Infosys.

MIGRATING APPLICATIONS TO THE CLOUD

Aeromexico chose Amazon Web Services (AWS) as its primary cloud provider. To optimize this choice, Infosys deployed application portfolio rationalization services to gather information about Aeromexico's existing applications and use it to make recommendations for retaining, retiring or migrating the different systems to AWS.

Application portfolio rationalization requires a rigorous methodology and a well-architected plan. As mentioned, Aeromexico has high functional redundancy because of its legacy of decentralized decision-making. This made the airline an ideal candidate for optimization.

Infosys is helping to define revised processes aligned to DevSecOps and agile working methods. DevSecOps (short for development, security and operations) adds security practices to the software development and delivery process. DevOps teams want to release software quickly, and they can often portray security teams as being to blame

for slow delivery. DevSecOps resolves that tension, delivering new software and services at agile speed without compromising application security.

DevSecOps requires governance policies and IT protocols to protect data throughout the pipeline. Infosys is developing a DevSecOps governance model, including KPIs and metrics aligned to Aeromexico's business and IT strategies.

An end-to-end DevSecOps pipeline is critical to building a successful software factory. The pipeline should include continuous integration (CI), continuous delivery and deployment (CD), continuous testing, continuous logging and monitoring, auditing and governance and operations. CI is a DevOps best practice for automating the integration of code changes from multiple contributors into a single software project. CD ensures application changes are automatically bug-tested and uploaded to a repository such as GitHub or a container registry. The operations team can deploy changes to a live production environment or automatically release them from the repository to production, where customers can use them. The latter scenario reduces the number of manual processes placed on the operations team—processes that typically slow down application delivery.

Infosys is building an end-to-end DevSecOps pipeline using AWS-native services. AWS has the services and tools to identify security vulnerabilities at various stages and provides Infosys with the flexibility to build DevSecOps pipelines with integrations of AWS cloud-native and third-party tools. AWS also offers services to aggregate security findings.

WRAPPING UP

After researching this case study, I think Aeromexico is making technology one of its critical business drivers. It has been investing in digital channels as a top priority, including its website and airport kiosks, to provide customers with more self-service capabilities. Aeromexico has also recently upgraded the whole baggage handling system, which must be welcome news to Aeromexico's travelers.

Rocha noted that the biggest challenge was not choosing or implementing the new technologies, but aligning the workforce towards a new mindset. We find this the case for nearly all frontline worker digital transformations. The primary goal is not cost savings and rationalization, but rather the ability to build new capabilities quickly—to be more agile and competitive. The second goal is resilience, ensuring that everything is

secure and protected. Rocha reports that early returns from the project look good and I am intrigued to see how it pays dividends for Aeromexico over time.

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