



Copa Airlines flies nearly 16 million passengers annually. That's a lot of baggage to track.



Copa Airlines earned the distinction of "Most Punctual Airline in the World." This came from "Official Airline Guide" (OAG), a UK-based air-travel intelligence company and the world's leading provider of network, air-travel data. According to OAG research, 89.79% of Copa flights across 80 destinations arrive or depart within 15 minutes of schedule.

Punctual arrives don't mean much if the passenger has to wait for bags or even worse, loses them. Each baggage transport data node must keep up with changing variables. The airline needed a data fabric to bring in the data for a soft landing.



"We focus on two things: punctuality and passenger service, both of which define and strengthen the Copa Airlines competitive advantage."

Hugo Aquino, Director of infrastructure services and technology operations at Copa Airlines

Data-driven customer service

In 2017, Copa Airlines began addressing substantial performance issues related to its baggage reconciliation system (BRS). After extensive market research and due diligence, the company opted to rearchitect its BRS infrastructure with NetApp technology. This resulted in markedly improved performance, reliability, and savings.

"We selected NetApp for the good performance presented in proof of concept, ease with system integration, and response time improvements once we put the solution to work," said Hugo Aquino, director of infrastructure services and technology operations at Copa Airlines.

Within a year, NetApp's ONTAP data management platform, which included FAS, AFF, and ONTAP Select, helped Copa Airlines zero out incidents of read-write latency in its BRS database. This in turn helped reduce the overall number of BRS delays by 75%, streamlining operations and improving customer service and cost efficiency.

Meanwhile, as part of another initiative, NetApp helped Copa Airlines migrate its Teradata data warehouse efficiently to public cloud. Copa Airlines uploaded 19 previously on-premises SQL databases to Amazon Web Services (AWS) with Cloud Volumes ONTAP in AWS. The consolidation reduced IT administration respon- sibility and operational cost.

Additionally, Copa Airlines took advantage of NetApp versatility by using NetApp FlexClone, a technology that speeds the creation of virtual database copies and associated reprovisioning, while using a fraction of the real storage otherwise required. These technologies helped integrate on-premises and cloud sources, making data ingestion seamless to the data warehouse. This was possible with engineering help from Web Devices Inc., a NetApp Star Partner in Panama.

As a result of the migration to cloud, Copa Airlines can run analytics and access reporting more efficiently to make faster and better-informed business decisions.

NetApp Cloud Volumes ONTAP hybrid cloud capabilities allow Copa Airlines to replicate data from on-premises to the cloud using SnapMirror, which helps integrate hybrid environments. The set-up's near real-time refresh mechanism (one-minute increments) pushes cloud database updates to onpremises SQL storage, synchronizing data systems and further improving operations and service delivery.

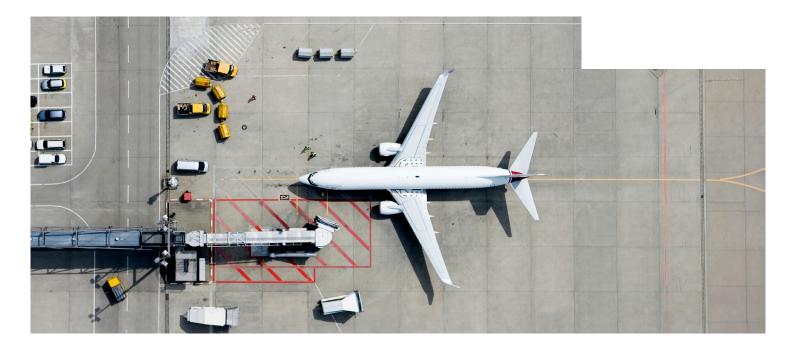
"We focus on two things: punctuality and passenger service, both of which define and strengthen the Copa Airlines competitive advantage," Aquino said.

Data-oriented vision

With NetApp, Copa Airlines' development of an operationswide data fabric applied cloud connectivity to improve response times. The airline further enhanced data performance with All Flash FAS, Cloud Volumes ONTAP, and SnapCenter. "NetApp offers a data-oriented vision. We were able to build through different components— AFF, Cloud Volumes ONTAP, and SnapCenter—to interconnect with a public cloud and be able to pass large volumes of information from the premises to the cloud and have information in the shortest possible time in order to make decisions," said Aquino.

Strong partner threads data fabric with advanced analytics

Copa Airlines was able to build an effective data fabric to move and consume data wherever necessary. On site applications benefit from improved time to market, broader magnitude, and cloud integration. This hybrid operational flexibility differentiated NetApp from alternative solutions. Meanwhile, Web Devices experts provided rigorous business analysis and solved many challenging operational issues while working alongside Copa Airlines and NetApp engineers. The total team effort put Cloud Volumes ONTAP at the nexus of Copa Airlines' Data Centric Architecture, and its opportunity list of IT initiatives. In fact, Copa deployed more than 20 ONTAP instances across several projects within a short time.



"By offering good response times with low data access latencies, we can make better decisions that allow us to understand customer expectations and their preferences. This improves our operation and helps us remain the most punctual airline in the world."

Hugo Aquino, Director of infrastructure services and technology operations at Copa Airlines

That's partly because Web Devices was key in positioning NetApp within Copa Airlines. The partner put together a proof of concept that eventually led to 80% of the storage infrastructure in the production environments running on NetApp (with plans to expand that coverage to 100%, including the development environments).

"Each airline has its business models. In particular, Copa Airlines is focused on punctuality and service. If we have the human value, the technology, and the processes, and we focus on giving that preferential value, we would obviously have an advantage over the rest of the market." Aquino said.

NetApp products

- Data fabric
- All Flash FAS
- ONTAP 9
- Cloud Volumes ONTAP
- SnapCenter















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