Pivot3

CHARLESTON INTERNATIONAL AIRPORT

Pivot3 Case Study
Safe Airport Solution

Industry
Transportation

Location
Charleston, South Carolina

Key Challenges

- Modernize security, surveillance, access control and IT infrastructure for South Carolina's largest and busiest airport
- Reliable data protection, system resilience and fault tolerance for the airport's valuable video and IT data
- Simplified access control for employees

Solution
Enterprise-class private cloud infrastructure supporting standardization for surveillance and datacenter

Business Benefits

- Industry-leading resilience to guarantee availability of video for evidentiary and investigative purposes
- Reduced TCO by consolidating servers, storage and client workstations managed through one interface that doesn't require specialized IT skills
- Deployment of a credential management system to simplify access control for airport employees
- Ability to add multiple workloads and standardize across security and datacenter
- Innovative solution for gate sharing to maximize operational efficiency

Joint Solution with:

Lenovo

Charleston Airport

Airport Modernizes Security and IT with Pivot3 Safe Airport Solution

About the Customer

Charleston International Airport is a joint civil-military airport located in North Charleston, South Carolina. The airport is operated by the Charleston County Aviation Authority under a joint-use agreement with Joint Base Charleston. It is South Carolina's largest and busiest airport. In 2016, the airport served more than 3.7 million passengers in its most active year on record. It is located approximately 12 miles northwest of downtown Charleston and is home to the Boeing facility that assembles the 787 Dreamliner. Charleston International Airport creates more than $200 million in income for workers in the region, while visiting passengers spend an estimated $450 million each year at local accommodations, restaurants and retailers. Together, the airport, Joint Base Charleston Air Base and The Boeing Company generate more than $13.8 billion and 51,000 local jobs annually in the Charleston region's economy.

The Challenge

In 2012, Charleston International Airport embarked on an ambitious upgrade project dubbed the Terminal Redevelopment and Improvement Program (TRIP). The $200 million initiative was designed to modernize and expand the facility to meet increased passenger demand. According to the Charleston Regional Business Journal, growth has averaged about 3 percent annually since 1985, but has jumped nearly 70 percent since 2010. The airport redesigned spaces to be more welcoming and airy, including floor-to-ceiling windows and glass walls. Passenger convenience was enhanced by consolidating the security checkpoints from two locations into one and adding new screening lanes to reduce wait times.

While the aesthetics and amenities of the airport were under construction, IT and security administrators sought a way to further modernize its security, surveillance, access control and IT infrastructure. The existing standalone server environment included siloed systems, management complexity, and high administrative and equipment costs. Considering the high value of the airport's video, security and IT data, it required a solution that could deliver reliable data protection, system resilience and fault tolerance. The airport is required to store video for 30 days, but it seeks to expand its retention time to 60 days. Therefore, technology that can scale simply was key in the selection process. The team also needed a storage platform that could manage the demanding write-intensive nature of its nearly 250 IP surveillance cameras — a challenging task for traditional video recorders.

The Charleston Airport team was introduced to Pivot3 in 2014 and was impressed by the fault tolerance, high availability and virtualized environment Pivot3 could provide. The airport deployed Pivot3 hyperconverged appliances to better manage captured video data and expand its archiver capability for video surveillance. When it came time to further develop the airport's security and IT infrastructure, including the addition of a new credential management system, the team evaluated the benefits of standardizing on Pivot3 solutions to meet the airport's evolving needs. Consolidating both the security and broader IT infrastructure on the Pivot3 infrastructure presented huge potential benefit with a broad range of cost saving and efficiency benefits.

The Solution

The Charleston Airport team decided to deploy a Pivot3 Safe Airport solution comprising multiple 24TB appliances and Pivot3's Intelligence Engine, initially deployed to upgrade the airport's video surveillance capabilities. Pivot3's solution is optimized for demanding, data-intensive workloads. Using standard server hardware, Pivot3 aggregates the storage and compute resources from multiple servers into a single unified pool that all cameras and applications can access, which maximizes performance and storage capacity utilization.

Pivot3 Safe Airport solutions are designed to provide industry-leading resiliency. Even if multiple hardware failures occur, including an entire appliance, video management servers will remain online and recording, and any previously recorded video will continue to be protected and accessible. Charleston Airport relies on video to validate whether something did or didn't happen; Pivot3's resilience ensures the protection of this important investigative tool.

Pivot3 also reduces total cost of operations by consolidating servers, storage and client workstations into one enterprise-class solution that is easily managed from a single user interface, without the need for specialized IT skills. Charleston Airport has a small team; the fact that they don't need a network engineer to manage their security and surveillance system is a significant benefit.

Building a Future-Proofed IT Environment

As the Charleston area continues to grow (it was recently named Southern Living Magazine's The South's Best City of 2017), the airport continues to look at further plans for expansion, including growing their camera count to 500 within the next two years. With the Pivot3 Safe Airport solution, Charleston airport can scale while continuing to protect its security and video data.

In addition, the airport is now leveraging Pivot3 as part of the airport's datacenter modernization initiative, enabling greatly improved operational efficiency. A unique virtual desktop infrastructure (VDI) initiative will enable the airport to share gates among multiple airlines, increasing the number of flights per day without adding additional gates or terminals. This instantly composable infrastructure contrasts with a traditional model where gates are tied to a single airline and often sit empty for long periods of time.

Due to Pivot3's linear scalability, high VM densities, industry-leading performance, and the capability to support multiple mission-critical workloads on a single platform, the airport has effectively future-proofed its IT environment.

About Pivot3

Pivot3's intelligent hybrid cloud and IoT-surveillance solutions provide security, resilience and management simplicity at scale for customers' mission-critical IT environments. Powered by the industry's only Intelligence Engine, Pivot3 automates the management of multiple, mixed application workloads, delivers industry-leading performance, eliminates unplanned downtime and data loss, and reduces the cost of traditional IT infrastructure by half or more. With thousands of customers in over 60 countries and deployments in education, hospitality, transportation, government, defense, healthcare, gaming, financial services and retail, Pivot3 allows IT to manage complexity at scale through intelligence and automation.

For more information, visit Pivot3.com