McCARRAN INTERNATIONAL AIRPORT

A rapidly growing Las Vegas airport relies on Stratus® everRun® software to prevent security and baggage handling system downtime

Located in Paradise, Nevada, McCarran International Airport is the primary commercial airport serving the Las Vegas Valley. Dedicated to providing excellence in customer service, airport facilities, and security, McCarran is the 25th busiest airport in the world and the 9th busiest in North America, serving more than 42.9 million passengers each year. McCarran and the four general aviation facilities in the Clark County Airport System are owned by Clark County, Nevada and have a significant impact on the local economy, providing $28 billion in economic output, $8 billion in labor income and more than 201,000 jobs annually.

Business Situation

McCarran International Airport maintains an extensive automated infrastructure to help provide an exceptional customer experience in a safe and secure environment. A decade ago, however, the airport was experiencing too-frequent unplanned downtime of two key systems: the Pegasys 2000 physical security system for badge tracking and door access, monitoring and alerting within secure areas; and the Vanderlande Baggage Handling System (BHS) for security screening, storage, sorting and transportation of arrival, departure and transfer baggage. These outages required costly human intervention to maintain customer service levels, minimize safety risks, and ensure compliance with Federal Transportation Security Administration (TSA) requirements.

When Pegasys 2000 system outages occurred, McCarran was forced to deploy personnel to monitor every door within the airport's secure areas and alert the Airport Control Center of any potential security issues. In addition to labor costs incurred for supplemental personnel, a system failure could result in TSA fines and penalties, potentially including the shutdown of McCarran operations and associated revenue losses for the airport and the airlines it serves.

A full or partial outage of the BHS dramatically increased the risk that passenger luggage would fail to arrive at the proper location—whether that be the correct plane or baggage carousel—in a timely and efficient manner. BHS downtime not only sullied the customer experience, but any related costs incurred by airlines, such as delivery of misrouted bags to travelers' destinations, would be charged back to the Clark County Airport System. Depending on the length and timing of the outage, these costs could add up quickly.

Because even brief outages can take a substantial toll on safety, customer satisfaction and the bottom line, McCarran decided to implement a downtime prevention solution to help keep its physical security system and BHS up and running all the time.

> "Our implementation of everRun software has provided a very stable system. It has kept critical systems fully functional when other solutions would have failed."

Rick Pearson
Departmental Systems Administrator
McCarran International Airport

The Solution

When setting out to select a downtime prevention solution, McCarran turned to Johnson Controls, its physical security system vendor, for a trusted recommendation. Johnson Controls suggested that the airport's IT staff implement Stratus everRun software, a fault-tolerant solution designed to ensure continuous availability of Windows®-based applications on standard x86 servers.

Unlike recovery-based solutions that need to be restarted, everRun creates a completely resilient application environment to keep the airport's security system and BHS up and running even in the event of a system or component failure. Using patented technology, everRun combines the physical resources of two HP DL 380 rack-mounted servers into a single operating environment with full redundancy of all underlying hardware and data. The applications run without modifications or complex scripting, thereby reducing system administration costs. In addition, availability monitoring with proactive failure alerts provides notification when something needs attention to avoid business interruptions.

McCarran's implementation required deployment of the software across multiple physical servers geographically separated by about one mile. Using Stratus everRun® SplitSite®, a cross-campus downtime prevention solution, the airport IT staff split the application server hardware between two separate data centers on premises. Synchronous data mirroring enables instant failover in the event of localized disasters such as flooding or power outages.

The Results

Since deploying everRun in 1999, McCarran International Airport has experienced zero unplanned downtime of its Pegasys and BHS brand systems, enabling the Clark County Airport System to avoid costs associated with supplemental labor, lost and misrouted bags, and potential TSA fines. Even when the airport opened Terminal 3 in 2012—increasing its potential annual capacity to approximately 55 million passengers—everRun allowed the IT staff to seamlessly scale the physical security and baggage handling systems to meet the expanded requirements while ensuring continuous availability.

The benefits of everRun became especially evident when, in early 2015, a major water leak flooded one of the airport's datacenters, causing all of the servers in that location to go down. Thanks to the SplitSite implementation, however, the everRun-based physical security system and BHS continued processing at the second datacenter without interruption.

With everRun, critical airport systems stay up and running continuously for always-on protection, compliance, and efficiency. This powerful, reliable downtime protection has enabled McCarran to improve the customer experience while helping to ensure the ongoing safety and security of its airport facilities.

> "Once the servers are configured and tested, everRun provides a hands-off system that requires little to no maintenance. When an issue does occur, we've received nothing but consistent support from the Stratus technicians who go above and beyond their duties to solve problems and verify functionality. In my experience, there is no other product that can match the stability of everRun."

Patrick Benoit
Systems Programmer II
McCarran International Airport

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