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▶▶ **In Brief**

Orlando Sanford International Airport faced regular failure of their crash phone system, compounded by the extended repair delays and recurring costs of leased line services and an external maintenance source. Leveraging the efficiencies of non-proprietary, standards-based software, their new WAVE-powered crash phone system provides them with a reliable, scalable, cost-effective solution they can maintain and optimize using internal resources.

What's a Crash Phone?

An airport's crash phone is perhaps its most important piece of emergency equipment. In the event of an emergency, air traffic control personnel in the tower simply pick up the phone and are connected instantly with a combination of first responders and airport operations staff. A crash phone operates like a conference call, but in reverse. Instead of different parties calling in to a single point, a single call simultaneously goes out to a number of recipients.

When Only 100% Reliability Will Do

How Orlando Sanford International Airport Deployed an Innovative WAVE-Powered IP Crash Phone System.

The Challenge

For more than five years, the Sanford Airport Authority (SAA) had been vigilantly waging a campaign to keep Orlando Sanford International Airport's outdated crash phone system up and running. Relying on an entirely analog infrastructure of local phone lines, the system was regularly failing on a monthly basis.

As the critical piece of equipment behind a coordinated emergency response, above all else, a crash phone must be absolutely reliable. Because of the age of system at SAA, however, problems arose as a result of anything from lightning and power surges to simple rain. If the six miles of old cable buried under the airport grounds got wet, the best they could hope for was static on the line. The worst, a complete outage.

Confronted with the recurring failures, SAA continued an ongoing regimen of daily testing. Unfortunately, when the system did go down, maintenance was out of their hands. SAA had to coordinate repairs with the local telecom company. In addition the recurring expense SAA incurred for the maintenance contract, it also meant a downtime of at least four hours before anyone even looked at the system. At times, the crash phone was nonfunctional for a day or longer. In the interim, SAA relied on radio as a backup system, a much less effective means of communication for a group conference call.

Needless to say, the delays from this service disconnect were a source of frustration for SAA personnel and a potential risk to passengers, crew members and emergency responders themselves. On one particular afternoon an airport incident occurred that required an emergency response. Despite a successful 7:00 a.m. system test that same day, the crash phone was inoperative at the crucial moment.

Fortunately, SAA staff were able to successfully orchestrate the necessary emergency actions by radio and the crash phone failure did not result in unnecessary harm or damage. Regardless, it was clear that SAA could not continue to rely on the old system. A new solution had to be found.

First and foremost, SAA needed a crash phone system that offered near-infallible reliability. As a close second, they desired a system that they could completely manage and maintain using responsive, cost-effective in-house personnel, and ideally, existing hardware. And obviously, given the state of their existing crash phone, they needed a solution that could be implemented in a relatively short period of time.

The Solution

SAA opted for an innovative new IP crash phone solution presented by VoiceInterop of Boca Raton, Florida. VoiceInterop, whose crash phone technology is powered by WAVE™ unified communications soft-

ware from industry leader Twisted Pair Solutions, provides voice and video interoperability solutions for homeland security, aviation, mass transit, utilities and commercial B2B applications.

One of the chief decision factors leading to the selection of VoiceInterop's WAVE-based system was its easy integration with existing hardware. As a standards-based software application capable of working in any Windows environment, WAVE is wholly unique among its peers. Every other industry solution requires investment in proprietary hardware, driving up costs and hindering scalability.

At the time, SAA was already employing an Avaya PBX system, consisting of an S8700 Media Server and Definity Servers, to manage internal communications. With the capacity to support a range of analog and digital interfaces, the most sensible and cost-effective solution was to leverage the full capabilities of the Avaya system with WAVE. As Avaya Labs had previously tested WAVE for compliance with Avaya Communications Manager, their call processing software, it was known that the Avaya system and WAVE would integrate perfectly.

SAA had spent nearly a year evaluating a variety of solutions, all of which were expensive, complicated hardware-based systems. Almost as soon as SAA saw a demonstration of the WAVE software-based system and an overview of its setup, functionality and efficiencies, they were sold. In addition, with WAVE as the solution's core component, it would be possible - better yet, easy - for SAA to avoid recurring maintenance costs and completely control management of the crash phone system using internal personnel.

Once SAA selected the VoiceInterop solution, the system was fully installed in less than three months. Originally, the crash phone had three legs, connecting to ARFF, Airport Operations and 911 dispatch. SAA has since capitalized on the ability of WAVE to connect disparate communication devices by linking their conventional channels with four truncated Motorola two-way radio talk groups all utilizing the same network resources. And as additional needs arise, the WAVE-based system provides SAA with a virtually unlimited capacity for expanding the number of call participants, regardless of the type of voice or data communications equipment they're using.

"The WAVE solution was easy to install, is easy to use, and will be easy to expand," says Jerry Crocker, IT Director at SAA. "As a software-based system, it's much more efficient than any of the hardware solutions we looked at, and it integrated seamlessly with our existing infrastructure. Most importantly, we can now handle any issues ourselves, with the immediacy they demand - should one ever occur."

About Twisted Pair Solutions

Twisted Pair Solutions is the worldwide leader in unified group communications. WAVE™ software makes communications pervasive by bringing together groups that couldn't communicate before, streamlining processes and operations, increasing productivity and lowering operational costs. Used extensively by US and Coalition defense forces, civilian and federal government agencies and world-class companies in the fields of aviation, shipping, energy and finance, WAVE uses the power of software to link people regardless of device, network, and application, quickly and inexpensively.