

THE STUDY:

Million Air Houston SAFE System Design

Million Air Houston recently completed a two-year joint effort with Navigance Technologies Group to help create and test a fully integrated web-based wireless security system which provides a transparent security umbrella over its 52-acre complex. The Navigance SAFE™ System provides restricted-access to the facility and manages risk on ramps and in hangar areas using secure high speed wireless networks designed by Navigance.

The prototype security platform designed by Navigance now ensures this Million Air at Houston Hobby Airport meets FAA and TSA Gateway requirements for all business aircraft en route to Ronald Reagan airport (DCA), which re-opened to general aviation traffic only late last year. Houston Hobby is one of only eight approved gateway cities for DCA.

“With the Navigance SAFE System, our facility has the security to ensure safe, unfettered travel, and protects our customers’ high-end assets,” said Bruce Lambert, Million Air director of information technology.

“Now we can recommend the Navigance System to other Million Air facilities that look to us for technical guidance.”

The 200-employee Million Air FBO at Houston Hobby serves some 25 base customers out of 15 hangars, including leased aircraft storage space and a complete maintenance operation. With American Jet International operating a fleet of 14 charter aircraft out of the facility plus a large volume of transient flights a day, Million Air is one of the busiest FBOs in the country.



Roger Woolsey CEO (left) Terry Cross, CFO and Sandy Nelson, VP marketing, viewing SAFE System activity real time.

THE CHALLENGE:

An Idea Becomes Reality



Bruce Lambert (center), Million Air IT Director stands in Dispatch where the SAFE System is monitored.

“Creating this security System has been a work in progress,” Lambert said.

“Navigance was the first third-party tech support vendor we ever let in. At first, I wasn’t sure that this was the way to go, but now I know I can count on them,” Lambert said.

In mid-2003, Bob Jandebour, Navigance President, offered Million Air a chance to help conceptualize and create a fully integrated security system for their facility. Jandebour brought experience from previous security network set-ups at locations such as the Million Air facility at Cleveland, and also Salt Lake

International for the 2002 Winter Olympics, as well as other aviation facilities.

But Million Air headquarters would be different. Aerial photographs would be used and a complete diagrammatic layout of Million Air's ramp and hangar space would be analyzed to determine camera locations and positioning of access controls. "I credit Bruce's patience during the process, where each of us shared the same vision that we were ahead of the marketplace of offering security to our customers. Hand holding was a key element that led to the success of this new System," Jandebeur said.

"We even mapped out a program for Million Air to use the wireless technology with their fuel trucks to deliver high speed internet on the ramp -- a technology first," he said. "This proved very useful during Super Bowl XXXVIII for the many pilots and passengers arriving and leaving Houston.

"Total cost for the Navigance System was less than we expected and well worth it," Lambert said. "Of course what we paid wasn't a true representation considering Navigance never charged us for the extra hours spent perfecting the System. Those are the costs you never recover when building a prototype.

"I would imagine an FBO could have Navigance install a System similar to ours for about \$95,000," he said.

Million Air worked closely with Navigance to come up with the original security System architecture, and it was a trial-and-error process.

Initially, all the software was downloaded onto one server. This step hindered the simultaneous operation of cameras and access control features which meant the System wasn't performing at peak potential.

Lambert recommended that Navigance install separate servers for each component of the Security System, rather than relying on a single computer to handle biometric readers, door and gate (access) control and the video camera controls and recording.

"We had to reset our recording system every few weeks or the recordings could have a bunch of frozen pixels, making it hard to see activity in certain areas of the screen."

"Although our server is wicked fast, it still can be undone by unstable software.

"We discussed with Navigance that the solution was to have dedicated servers for each computer application -- DVR (Digital Video Recorder), biometrics, access controls, accounting, fuel sales -- whatever. Servers would work best," Lambert said.

"Today from the cooperative effort by two general aviation pioneers in developing this Security System, Navigance has now established a solid technology base using a DVR unit which interfaces with a new innovative access control system that does not require a server. Our SAFE Server now acts as a portal to each customer's system allowing us to offer the unique ability to be a "virtual IT" department. The majority of companies can not justify having an IT department like the Million Air chain, so we fill that roll via the web," Jandebeur said.



Pan/tilt/zoom camera viewing Million Air's FBO and ramp area.

**Creating
Prototype Not
Easy**

THE SOLUTION:

Cameras, Access Controls Are Keys



Customer Service Representative using biometric access control to deliver catering to awaiting aircraft.

The Navigance-designed Security System at Million Air includes eight cameras and biometric and magnetic card access controls on gates and doors.

The Million Air Security System has met challenges from the start.

When airport construction closed the FBO's main gate in late 2005 and forced customers and employees to use alternate access, the Security System proved to be flexible and useful.

"We've used the cameras to monitor all work at our facilities and used the access controls to change how people get in and out of here," Lambert said.

Access control programming flexibility made those changes easier.

Ray Murphy, Million Air Operations Director, added, "Our Security System is forward thinking. Our goal is to keep people IN our building instead of keeping them out. We want un-badged visitors where we can see them and know what they're doing, rather than have them running around among the airplanes without an escort."

The cameras record activity around the clock on the ramp and aircraft pull-in and parking areas, in tenant and maintenance hangars, and at access gates and parking lots.

With Million Air's focus on customer safety and service, and on its own bottom line, the FBO immediately understood what the Navigance program could do. By controlling airport and hangar access, and by keeping digital video recordings of activity at key areas, Million Air could offer tenants and transient customers' complete peace-of-mind -- and the possibility of reduced insurance costs.

"When you have a recording of everything that happens in a hangar, it's easy to determine who is -- and isn't -- at fault in an incident," Lambert said.

With the Security System up and running, Million Air's goal is to use it to give customers the secure feeling that they are housing their aircraft in a fully monitored facility.

The Human Element

Security is a safety net, Murphy said. "Technology can only enhance a human's ability to do a job. Our Security System can't possibly replace the human ability to instantly recognize when somebody doesn't belong, or something is out of place." Murphy added that while there is value in having his staff monitor the cameras 24/7 on a giant screen in the charter dispatch area it wouldn't make them responsible for security, since it can be so busy at a moment's notice.

"This points out one of the real benefits of our System," said Jandebaur, "since the System can be programmed to notify you of motion alerts automatically plus interface with the access control system to view events or alarms real time via a laptop or PDA."



Million Air staff discussing SAFE System multi-camera views on CSR plasma monitor.

SUMMARY:

What the Future Holds

“It would be better if each airport had one security system and shared data and access limits with all tenants,” said Murphy.

“The Houston Airport security policy requires that we deal with multi-layered security which adds to the bureaucracy and paperwork. We’re looking to Navigance for some kind of interface to allow our Security System to talk with the Airport’s system and be compliant and accept our badging and access control.”

Lambert has now approved Navigance augmenting the FBO’s current System by implementing the new *SAFE* Access Control version which integrates *S2 Security’s* web-based technology, *precluding the need for a server*. Next on the list is newly enhanced color cameras and the latest Digital Video Recorders to stay in the forefront.

“Million Air can help establish an example for others to follow -- a common sense approach for security with safety enhancements,” Lambert added

The Million Air chain of FBOs covers 33 airports across the U.S., Canada and the Caribbean.

Navigance Technologies Group is a systems integrator focused exclusively on wireless security and communications solutions for General Aviation Airports, FBOs and aircraft operators. www.navigance.com • 918.493.1954 • 1.877.GOWIFLI