PORT OF HOUSTON
MANAGING THE CRITICAL FLOW OF PEOPLE USING TWIC™

The Port of Houston consists of the Port of Houston Authority (PHA) and 150+ private industrial companies along the 25-mile long Houston Ship Channel. The Port of Houston is solely responsible for the security of its terminals. The 150+ private owners have their own security plans, however, they closely figure into the security matrix for protection within the Port. Bill Crews, CPP is the Port Security & Emergency Operations Manager and works closely with the owners to maintain a consistent level of security throughout all terminals.

Managing Access
The PHA is split between the Barbour’s Cut region and Turning Basin region. Each region manages a portion of the port. AMAG Technology’s Symmetry Global Security Management software operates as two regions, however everyone gets enrolled in the Symmetry Central Card Handler regardless if a person is in Barbour’s Cut or Turning Basin. The Symmetry Central Card Handler provides a central place for all basic cardholder information. Once enrolled, the cards are pushed out to the region where they will be used.

Each card holder record that is part of the Port’s Symmetry Security Management System is managed by the Central Card Handler. What gives the system so much power and flexibility is that these access rights can be communicated quickly and easily to any card reader location.

“If a person needs access to Barbour’s Cut, but has no reason to come to Turning Basin, then the information is pushed to Barbour’s Cut,” said Texas Technical Services, Inc., Senior Technician, Mike Lee. “If in two or three years from now that same person needs to be at Turning Basin, the information is already in the system so the administrators just have to push his information to Turning Basin, give him access and it’s done. It’s a good feature.” The Symmetry Central Card Handler can also have information on a regional basis. A person can receive card access from any workstation since every system has the same card information. An additional feature of the Symmetry Central Card Handler is that in the event of a disaster all records are saved. The system could be rebuilt and cards pushed right back to the region. All TWIC and non-TWIC workstations can access it.

TWIC
In 2002 congress directed the federal government, through the Maritime Transportation Security Act (MTSA), to require a biometric security credential of any individual using unescorted access when entering secure areas of facilities and vessels. This requirement was also requested of all mariners holding Coast Guard-issued credentials or qualification documents.

The final result was the Transportation Worker Identification Credential, commonly referred to as TWIC™. This is an
identification credential for all personnel requiring unescorted access to secure areas of MTSA-regulated facilities and vessels, and all mariners holding Coast Guard issued credentials. Individuals who met TWIC eligibility requirements were then issued a tamper-resistant credential containing the person’s fingerprint and an access code which allowed for a positive link between the card and the individual.

To receive a TWIC, a person must pass a security threat assessment conducted by the Transportation Security Administration (TSA), which looks at criminal background, immigrant status, terrorist watch list screening and mental capacity. It takes approximately 21 days to receive the TWIC.

The PHA successfully implemented the TWIC program on the compliance deadline of April 14, 2009. Implementing TWIC ensures that individuals who pose a threat do not gain unescorted access to secure areas of the nation’s maritime transportation system. If someone needs unescorted access to a secure area of the PHA, or any federally regulated terminal or facility along the Houston Ship Channel, they must either have a TWIC or be personally escorted by an authorized security team member.

“TWIC controls access to restricted areas, whether it’s an entire terminal or a section of a terminal, but it’s all based on access,” said PHA, Port Security & Emergency Operations Manager, Bill Crews, CPP. “Not every Port employee has a TWIC, for example, those who work in the executive building in accounting, payroll and purchasing don’t have a TWIC because they don’t have a reason to go to a restricted area. Receiving a TWIC is based on your job requirements and where you interface with people.”

Nearly 300,000 people are required to have a TWIC in the Houston region including certain PHA employees, longshoremen, truckers, steamship lines personnel, stevedores and vendors.

A TWIC is required for access throughout Barbour’s Cut and Bayport container terminals, as well as for access to the waterfront area of PHA’s Turning Basin terminal. All waterfront access throughout the 25 mile ship channel requires a TWIC.

“The TWIC program added a layer of security to port operations that we didn’t have before,” said Crews. “Now we have a method to vet the people that we are allowing access. It’s robust, and great to know who is on your port facility at all times.”

**Enrollment**

To help streamline the enormous enrollment process that was ahead of them, the PHA took it upon themselves to not only set up five desktop enrollment stations throughout the PHA to make it easy for individuals to enroll, but they went out to the companies involved to proactively register workers. Using their Datastrip DSV2+Turbo®, mobile reader with Codebench’s PIVCheck Plus software, they made arrangements with the transportation companies and UL Labor Unions to visit and enroll people at their locations.

“When you tell people to come in (to the PHA), you are taking them away from what they should be doing,” said Crews. “We worked with some of the larger trucking companies and asked if they would get their guys together. We went to their company with our mobile reader and knocked out 200 people at one time. They didn’t have to worry about 200 of their people taking a break and coming down to the credentialing office on company time to do that.”

“The PHA security staff enrolled approximately 60-70 percent of the TWIC registrations remotely,” said Lee. “In the evenings they would come back to the office and register all the people they captured. It was time consuming due to the amount of people. There were nearly 7,000 hourly people easily, and that’s not including the truckers. They did all of this in three to four weeks.”

Crews was thrilled he could use the handheld reader to get people enrolled ahead of time. After everyone is enrolled, the reader will become a compliance tool to help maintain a high level of security by spot checking individuals throughout the PHA.

**How does it work?**

At this point, only electronic verification of the TWIC is being implemented. Ports require people to show their credential and the security staff is trained to recognize false credentials. Security is ensuring the card is legitimate and making sure the person holding the card is the person on the card, but there is no interrogating of the card at this point.

The PHA had chosen AMAG’s Symmetry Global Security Management System prior to the TWIC mandate because they felt it was a proven product. AMAG’s extensive experience in other sectors of the government proved they could provide government compliance as new mandates were initiated.

The key to the PHA’s TWIC implementation is integration between AMAG Technology’s Symmetry Global Security Management System and Codebench’s PIVCheck Plus software. The integration allowed the PHA to link the brand new TWIC to their legacy Desfire card – the card they were using prior to the TWIC. In some cases, individuals need to use their legacy card, but they also needed to have a TWIC because there are secure areas of the port, and they needed a mechanism- Symmetry - to update the existing cardholder record with the additional TWIC information.

Symmetry Global enables new TWIC holders, such as truckers, to capture the information and import it directly as a new cardholder record. In some cases they are linking the TWIC to a cardholder record that exists, and in other cases they are adding a brand new cardholder record with a TWIC in Symmetry. TWIC information is automatically loaded into Symmetry – no manual data entry is needed.
Codebench’s PIVCheck Plus software performs a four-factor authentication that includes viewing the photo of the cardholder, matching a PIN, matching a biometric fingerprint and checking the card’s digital certificates against the TSA Hotlist. The PHA currently uses the visual verification and checks digital certificates, using the Certificate Manager portion of the PIVCheck Plus software, against the TSA Hotlist. The PHA is ready for the biometric phase of the TWIC and is waiting for the government to mandate that portion of the program.

“The PHA checks the TSA Hotlist during the registration and import of the information into Symmetry, but Codebench’s Certificate Manager constantly rechecks the TSA Hotlist afterwards on a periodic basis,” said Codebench, CEO, Geri B. Castaldo. “If it finds a TSA revoked card, our software can go into Symmetry and suspend any card that is associated with that person. This only happens when you are checking the digital certificates.” The PHA checks the TSA Hotlist every 11.2 hours to ensure no unauthorized people are on the premises. If the TSA Hotlist confirms a person is on the list, it immediately suspends the person’s card and sends an email notification to the security personnel at PHA.

**Challenges**

Overcoming the short time period from approval to completion was the biggest challenge for TTSI. It was literally weeks of everyone on all sides of the project working around the clock to complete the project on schedule. Another monumental challenge was getting as many people as possible enrolled. Many of the people are migratory people. They may work in Galveston this month and work in Houston the next month. And the sheer amount of people that needed to be enrolled was staggering. Overseas vessel masters and their crews are considered foreign nationals and are not eligible for a TWIC. If they leave their vessel to go on shore leave, they have to be physically escorted from the vessel to outside the restricted area.

Crews is happy with the outcome of his security program as a whole, and feels he has a comprehensive system in place. “TWIC added another layer of security to an already robust security system,” said Crews.

**Why TTSI**

Established in 1985, Texas Technical Services was founded on the philosophy of providing customers with the best value by leveraging integrated solutions to meet any need. TTSI uses open architecture systems to allow integration with existing technologies. This philosophy provides their customers with greater ROI by reducing support costs via a single user interface, and allowing customer’s organizational units easier access and flexibility when using our solutions.

“The TWIC program added a layer of security to port operations that we didn’t have before,” said Bill Crews, PHA Port Security & Emergency Operations Manager.