TSA TWIC Program
Operational Considerations
and
One Manufacturer’s TWIC Pilot Experience
TSA TWIC Program

Topics Covered

- Overview of latest Notice of Public Rulemaking
- Operational Considerations of TWIC Implementation
- Interesting Lessons Learned – One Reader Manufacturers Experience
Coast Guard Notice of Proposed Public Rulemaking

Released March 27, 2009

Risk Based Approach

• Based on “maximum consequence” of a terrorist attack; impact on nation’s health, economy, and security

• Three categories, high (A), medium (B), low (C)
  - Category A: vessels carrying more than 1000 passengers, vessels carrying dangerous cargoes, towing vessels
  - Category B: vessels carrying 500 to 1000 passengers, vessels carrying hazardous flammable or combustible material, towing vessels
  - Category C: vessels carrying less than 500 passengers, vessels carrying non-hazardous cargoes, offshore supply vessels, towing vessels, and offshore drilling units
# Coast Guard Notice of Proposed Public Rulemaking

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Marsec 1</th>
<th>Marsec 2</th>
<th>Marsec 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A More than 1000 passengers CDCs</td>
<td>Biometric Match to Card Hotlist Check- Update weekly Card Authentication Certificate Check</td>
<td>Hotlist Check Update daily</td>
<td>Hotlist Check Update daily</td>
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<tr>
<td>B 500 - 1000 passengers HAZ MAT, Crude Oil</td>
<td>Once a month random Biometric Match to Card Hotlist Check- Update weekly Card Authentication Certificate Check</td>
<td>Biometric Match to card Hotlist Check Update daily</td>
<td>Biometric Match to card Hotlist Check Update daily</td>
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<tr>
<td>C Less than 500 passengers Non-HAZ MAT,</td>
<td>Visual inspection of Card Check Security Features Expiration Date Check CG random spot checks</td>
<td>No Change</td>
<td>No Change</td>
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</table>
The biggest challenge for customers: TWIC Card interfaces provide access to different data elements on the Card

<table>
<thead>
<tr>
<th>Data Encoded in TWIC Card</th>
<th>Contact Interface After PIN Entry</th>
<th>TWIC Contact</th>
<th>TWIC Contactless</th>
<th>TWIC Magnetic Stripe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardholder’s Name</td>
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<tr>
<td>Cardholder’s Picture</td>
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<td>FASC-N</td>
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<tr>
<td>Card Expiration Date</td>
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<td>Credential Series</td>
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<td>Credential Issue</td>
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<td>Person Identifier</td>
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<td>Association Category</td>
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<td>Agency/Department</td>
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<td>Agency Card Serial</td>
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<tr>
<td>Issuer Identification</td>
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<tr>
<td>Biometric Template</td>
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<tr>
<td>TWIC Privacy Keys</td>
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<tr>
<td>Encrypted Biometric</td>
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The biggest challenge for customers:

- Understanding how to read the TWIC card to get the data needed
  - Cardholder Picture is only available through contact read of card and PIN entry
  - Biometric authentication requires access to encrypted template via contactless interface and access to TPK (TWIC Privacy Keys)
    - How is the TPK made available to the TWIC reader?
  - Biometric authentication requires access to the TWIC Privacy Keys (TPK) – available only from magnetic stripe or a contact read of card (no PIN)
TSA TWIC Program Operational Considerations

- Integrating TWIC Card into Existing PACS
  - Define TWIC card registration in the existing PACS system
    - Hotlist check during card registration
  - Consider other systems that use existing PACS ID, do they need the TWIC card PACS ID?

- How is the TWIC Card going to be read at the gate, on the dock?
  - Driver for this decision is TCP/IP connectivity
TSA TWIC Program Operational Considerations

TCP Connectivity

- Contactless + Biometric Sensor + Hotlist Check
- Contact + Biometric Sensor + Hotlist Check

No TCP Connectivity

- Manual load of Hotlist Check
- Contactless + Biometric Sensor + Magnetic Stripe Reader
- Contact + Biometric Sensor
12 Outdoor Biometric TWIC Readers in Operation
- Locations range from Dock, Truck Lanes, Car Lanes, to Coal Yard

Port of Brownsville selected because of its harsh environment:
- Extreme temperatures and humidity
- Dusty, grimy environment

Prime Contractor with Two Subs performing the installation
Prime contractors and sub-contractors did not have TWIC cards early on
- Didn’t understand TWIC Card is not a touch and go card
  - When read TWIC card is passing 27,000 bits or more of data; prox card only passes 26 bits of data
- Didn’t understand the FIPS201 – TWIC card rules
  - What data has to be read from the card, what is stored for future access what is always read from the card in real time
  - What data must the TWIC reader access to perform required functions
TWIC Pilot Program Port of Brownsville Lessons Learned

- Conflicting messages from Local Coast Guard and TSA TWIC Team - this has now been addressed in the HomePort TWIC FAQs
  - CG: TWIC cardholders must enter PIN to authenticate to card
  - TSA TWIC Team: TWIC cardholders do not need to know PIN for registration of TWIC card into PACS

- TWIC Reader Specifications do not and were not meant to address operational considerations
  - PACS registration of TWIC card should require a hotlist check
  - Non networked fixed readers are not required to check a TWIC card against the Hotlist

- Functional Specification Conformance Tests (F-SCT) underway
  - Major goals: identify inconsistencies and vague specifications, validate the test protocol