DOT Credentialing Project
Vision and Architecture

Presented to
Smart Card Alliance’s
SMART CARDS IN GOVERNMENT
SYMPOSIUM
June 3-5, 2002
TSA Mission and Vision

TSA Mission
To protect the nation's transportation systems to ensure freedom of movement for people and commerce.

TSA Vision
TSA will continuously set the standard for excellence in transportation security through its people, processes and technologies.
Review

- Vision: Establish the transportation system-wide common architecture to meet current and future, physical and logical access, and privacy requirements for all personnel, of all transportation modes.

- Primary focus: “transportation workers”- any person who requires unescorted access to a secure area of the transportation system.
  - Goals:
    - One standardized credential.
    - One integrated and secure network of databases.
    - Architecture that could support the “registered traveler” or “registered shipper”
  - Key Principles:
    - Leverage the current local authority/agency and industry investments
    - DOT defines minimum security and privacy requirements, technology standards, certification and performance requirements
    - DOT provides guidance and incentives to local authorities for technology refreshment and investment decisions to enhance migration to increased use of common credential platform
    - DOT fields the common credential and issuance infrastructure
    - Balance security, commerce and privacy requirements
    - Maximum use of outsourcing
    - Public-Public-Private Partnership
Goals

One standardized credential
- Universally recognized and accepted across the DOT
- Able to be used locally within the facility infrastructure
- Meets multiple levels of secure access requirements.
One integrated & secure network of databases

- Leverages current local database infrastructure
- Includes all enrolled personnel
- Reference Biometric

Goals

TSA Central Control Point

FBI, INS, Federal Systems

VPN

LAX

Perimeter Access Station

Security Access Station

TWIC Data Base and Issuance Center

HQ

Perimeter Access Station

Security Access Station

TWIC Data Base and Issuance Center

Chicago

Perimeter Access Station

Security Access Station

TWIC Data Base and Issuance Center

Miami

Perimeter Access Station

Security Access Station

TWIC Data Base and Issuance Center
Major Components

Federal
FBI
INS

Regional Data Bases & Card Issuance Centers

Enrollment Capture Stations and Local Data Base

Biometric Device
Fingerprint Device
Digital Camera
Smart Card Reader
Document Scanner
Verification Device
Card Activation

Central Switch

Systems for Alerts and Warnings

VPN

Other Local Date Bases

Other Local Date Bases

Regional Data Bases & Card Issuance Centers

Major Components
Card Architecture

Standards Based Solution

• GSA Smart Card Interoperability Schedule

  • Leverage inherent strength of smart card technology
  • Standard Data Model for the DOT Container
  • Established Standards, Specifications, Performance
  • Multiple Vendor Sources
    • Use ‘Market Force’ for validation of ‘new’ technology
  • Commercial Technology Based Infrastructure
    • COTS
    • FIPS 140 Compliant

• Expected Standards for the Smart Card Technology

  • GSA Interoperability Specification GSA-1S
  • 32K EEPROM (1CC) migrating to 64K
  • JAVA OS  Open Platform
  • Contact chip migrating to Contact-Contact-less capability
  • Additional technologies (barcodes, magnetic stripe) may be implemented based on Agency and Stakeholder requirements
  • Supports integration with current infrastructure investment
Enrollment and Issuance

Simplified Process for Enrollment and Issuance of TWIC

Enrollment and Capture Station

- Claimed Identity Documentation
- Background Check Fingerprint, Drug Test etc
- DOT “57” Data Capture
- Digital Photo & Biometric Capture

Central and Other Agencies

- Background Check Process—Fingerprint etc
- Completed by other Agencies
- Central Establishes Reference Completes 1:N Biometric Search

Enrollment and Capture Station

- Compile Responses & Decision to Issue
- Regional Printer Card Initialization and Final Personalization
- Notify Central and Individual

Enrollment and Capture Station

- Unlock card, Conduct Biometric 1:1 Check Worker-Enrollment Request-Card
- Validate Data, Notify Central
- Issue Card

Business Hours

Overnight
United States Department of Transportation
Transportation Worker Identification Credential

Employer: Silverbird Trucking
Issue Date: 2002SEP19
Expiration Date: 2003SEP20
Name: Transportation Worker

Variable Printed Data
Micro Printing Technology
Optical Variable Devices
Ultraviolet Ink

Guilloche Pattern
High Resolution Digital Photo
Crest of Logo of home or host agency or group

Government Employee
Contractor and LEO

Transportation Worker Identification Credential
This card is property of the DOT, and is intended for official identification purposes only, and misuse, alteration or abuse is subject to Title 18 USC 499, 506, and 701. If found mail to DOT, 400 7th St. SW, Washington, DC 20590. Return postage Guaranteed.
Next Steps

Credential Project Office and Composite GT51-CDAG Group will:

• Use our multi-modal working groups to finalize key components and issues:
  • Topology Design (Visual Appearance, Printed Information and Technology Layout)
  • Claimed Identity Documentation
  • Specific requirements (Recommended Pilots, Additional Technology, Populations)
  • Policy Issues
  • Cost Sharing Detailed Strategy

• Continue to improve our engagement with the full range of stakeholders and channel feedback to improve and field the vision in Public-Public-Private Partnership

• Prepare for the June Pilot Phase