Outline

- Homeland Security Mission Spectrum
- Market Assessment
- Identification and Authentication Solutions
- GSA Smart Card Program
- Physical Access Solutions
- Conclusions
Homeland Security: Those domestic security programs, domestic and overseas homeland defense missions performed by military forces, and diplomatic intelligence efforts that detect, prevent, prepare for, respond to, and recover from threats to/attacks on the US Homeland.
Market Assessment: Key Questions

- **Who are the likely customers?**
  - The customer base remains complex and fragmented
    - Federal buying community comprised of ~50 organizations, overseen by 26 Hill committees
    - State/local customer base clarity is variable (26 states w/HLS czars, 6 w/budget authority)
  - OHS established, but lacks decision making/budget authority. Unless this changes:
    - Funding will likely be divided into relatively small pieces, making it difficult to find it and get it aggregations large enough to fund major initiatives.
    - Marketing will need to target multiple organizations concurrently.

**Bottom line:** The real HLS market is potentially lucrative but yet to be defined, and thus is “shape-able” over the near/medium-term.
The Real HLS Market Lies Beyond the $40B

- Current focus of HLS effort is domestic recovery and increased domestic security/law enforcement OPTEMPO, and overseas military response
- OHS coordinating development of “multi-year/multi-function budget” (due Spring 02) to support national HLS strategy and related technology requirements
- Future budget requests and supplementals (which are expected) will reflect emerging OHS emphasis on prevention, detection and preparation
  - Recent reports suggest Ridge will call for major increases in relevant agency budgets for prevention, detection and preparation missions
- Suggests bulk of funding for HLS technology solutions in major PCC functional areas will be requested in 2002 and beyond as national HLS strategy/budget is developed
  - Must be wary of funding for existing NGC programs being raided to pay for urgent HLS priorities

“The Defense Department takes a long-range approach to its budget needs. Homeland security will do likewise with a multiyear budget plan, a plan that cuts across all agencies, a plan that not only addresses present urgent needs as we build a foundation for national homeland security but also works to get ahead of the threat.”

Gov. Ridge at 11/25/01 AW&ST conference
Identification and Authentication Solutions

- Customer Site Assessments
- Identification Background Checks
- Personnel Card Issuance Solutions
- Physical & Logical Access Solutions
- Custom Smartcard Application Development
- Life-Cycle Card Management Solutions
- Emergency Dispatch & Response Systems
- Systems Maintenance And Help Desk Support
GSA Smart ID Card Contract Overview

- Interoperable multi-application smart card systems and services
- ID/IQ program estimated value of $1.5 billion for 10 years
- Contract Type: Fixed price, labor hour and/or time and material
- Eligible Clients: All Federal Agencies
- Initial focus on providing employee identification and building (physical) access, as well as computer network (logical) access
- Four interoperability function areas:
  - Physical access
  - Logical access
  - Cryptographic services
  - Biometrics functions
GSA’s SMART CARD VISION

- Single Card, multiple purpose
- Secure access to government facilities, systems, applications, and data
- Interoperable cards, readers, and Applications
- Enable employees to do the job faster, better, cheaper, and more securely
GSA’s Interoperability Specification

- Any Card in any Reader
- Modular concept with well defined interfaces
- Substitute Service Provider Module (SPM) with any vendor
- Add applications easily without need to reconfigure
- Agency-defining card capabilities container
Current Physical Access Systems

- Physical Security Challenges
  - Difficult to implement due to:
    - Wide range of systems
    - Access schemes
    - Manufactures
    - Proprietary solutions
  - Existing infrastructure
    - Investment to date
    - Agencies not willing to make changes to meet common standard
  - Price of entry for the Smart Card
    - Contact vs. Contactless
Physical Security Solution

- **Card Issuance System**
  - GSA J.8 formatter
  - CAC formatter

- **Central Card Management System**
  - Tenant database
    - Biometric, Photograph, etc.
  - Physical database
  - Logical database
  - Report Generation

- **Logical Access**
  - Login Gina
  - PKI

- **Access Control System**
  - Multiple Buildings
  - Doors
  - Cameras

- **Access Control Devices**
  - Contact
  - Contact less
Multi-Step Security Levels

• **Smart Card and Reader Match**
  - Step 1: Smart Card Contact and/or Contactless
  - Step 2: Smart Card Contact and/or Contactless & PIN
  - Step 3: Smart Card Contact and/or Contactless & Fingerprint Biometric
  - Step 4: Smart Card Contact and/or Contactless, PIN, & Fingerprint Biometric

• **Emergency Access Restriction**
  - “Single button” control to restrict perimeter access to security personnel
  - Independent reader authentication of specially configured ID cards in case of system outage

• **Evacuation Accounting**
  - Emergency fast download of building roster to portable device
  - Roster reconciliation using smart card ID badges
Physical Access Control Device Requirements

1. Self Contained Contact Smart Card Reader
   - ISO 7816 T=1, T=0 chip cards
   - Software programmable
     » GSA Interoperable J8 data format and specifications
     » GSA Interoperable Service Provider Module

2. Biometric Device
   - Match Live-scan from Biometric template stored on card

3. LCD
   - Software programmable text messaging

4. PIN PAD
   - Match user entry PIN to PIN stored on Smart card

5. Security Mode
   - Programmable multi-mode security step-up mode

6. RS232, RS485, Digital I/O or Weigand output

7. UL Certified
Turnstiles and Physical Access Devices

- **Optical Portal - Turnstiles**
  - Different styles
  - Optical sensors
  - Detect, deter and report unauthorized entry
  - Single bar, triple bar, or retractable wing barriers
  - Hands-free open
  - Fail safe -- automatic open in case of emergency
  - ADA compliant

- **Access Control Devices**
  - Smart Card Contact Reader
  - Smart Card Contactless Reader
  - HID Contactless Proximity Reader
  - LCD / PIN
  - Biometric Fingerprint Reader
Physical Access Smart Cards

• Employee Card
  – Multi-technology combination Logical and Physical Smart Card
    • 32k Contact Card
      – FIPS 140-1
      – GSA J.8 format, photo IDs, biometrics, digital signature etc.
    • 1-4K Mifare 64-bit encryption Contactless Card
      – Biometric and photograph

• Tenant Smart Card
  – Less expensive Contact/Contactless Card
  – Memory Cards
  – Proximity Cards
Thank you ...

Keith Ward
General Manager
Smart Card Solutions
PRC Inc.
1500 PRC Drive
McLean, VA 22102
Tel: 703-620-8619
Fax: 703-620-8556
Email: ward_keith@prc.com
www.northropgrummanit/homelandsecurity