

# NASS EX 2005: The Central Station of the Future

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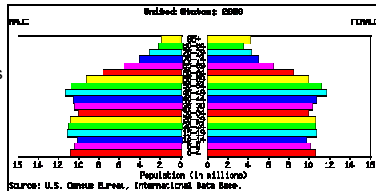
## Overview

- Customer
  - Population Trends
  - Level of technological sophistication
- Operator
  - Skill Set
  - Geography
- Authorities
  - PSAPs Interaction
  - Independent Response Agencies
- Access Control & Facilities Management
- Monitoring on the Move: Global Positioning Systems and Asset Tracking
- IP-based Alarm Panels
- People and Processes
- Monitoring Energy Consumption
- Monitoring White Goods
- Monitoring Services
- Tracking using GPS

## Customer Profile

### Aging Population

- PERS
- Medication reminders
- Inactivity



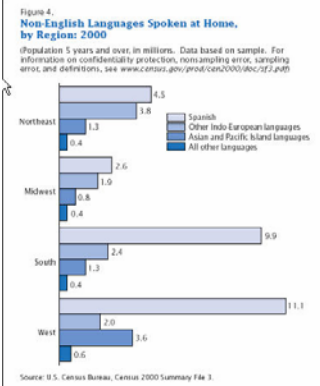
### Tracking

- Alzheimer's patient monitoring
- Temporary medical monitoring to assist providers with earlier hospital releases

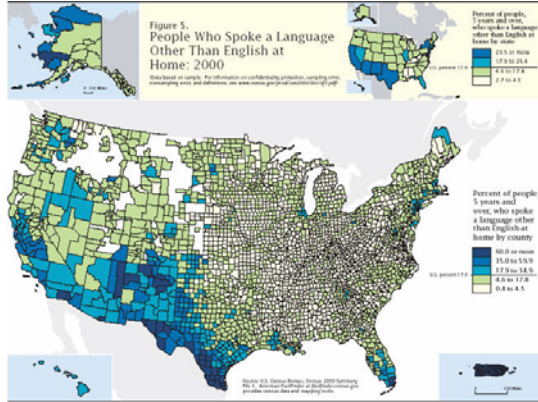
## Customer Profile Cont.

### Language Opportunities

- 4% increase from 1999 to 2000 in number of people that spoke a language other than English in their home (47 million people)
- Over 1 million people in CA (2x any other state), TX, NY, FL, IL, NJ, AZ, MA.
- Highest % growth is in NV, GE, NC, UT, AR, OR.



## Customer Profile Cont.



## Customer Profile Cont.

### Technologically Well Equipped

- 2004 was 2<sup>nd</sup> highest growth year for wireless phones with subscribers up over 23.4 million from 2003
  - Camera phone ownership has more than tripled, increasing from 4% in 2003 to 15% in 2004. (JD Power)
  - Text Messaging in US for Feb 2005 - 63 percent of all cell phone users 18-27 year old have used SMS, as compared to 31 percent in the 28-39 age bracket and 7 percent in the over 60 range (Pew Internet)
- \$4.3 billion PDAs sold in 2004, 16.7% increase over 2003 (Tekrati Research)
- The average number of PCs per PC-owning household is 1.5 (IDC)
- Nearly three out of four U.S. households with a phone line have access to the Internet, according to a February 2004 Nielsen/NetRatings survey.
  - In the U.S. 204.3 million people have access to the Internet, or 74.9 percent of the population.

## Customer Interaction

- Utilization of cell phones, text messaging, handhelds
  - Non-critical signal notification
  - Replacing traditional telephone notification
- Internet monitoring
- Customer access to information
  - Database
  - Signal history
- False dispatch management

### Web Connection Speed Trends - Home Users (US)

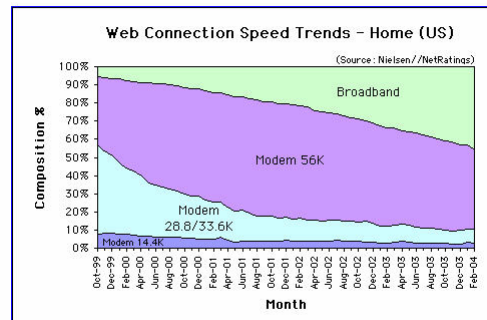
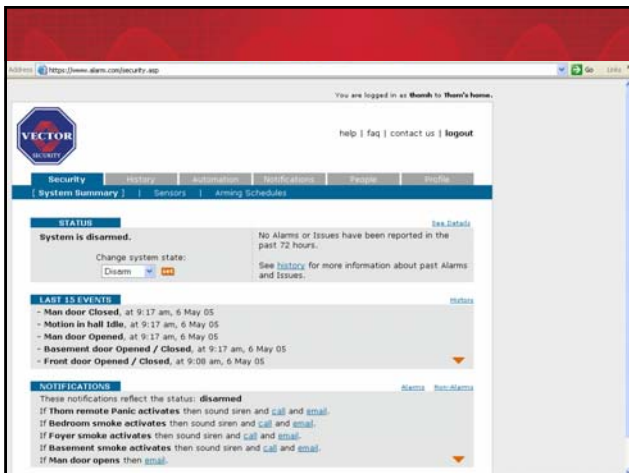
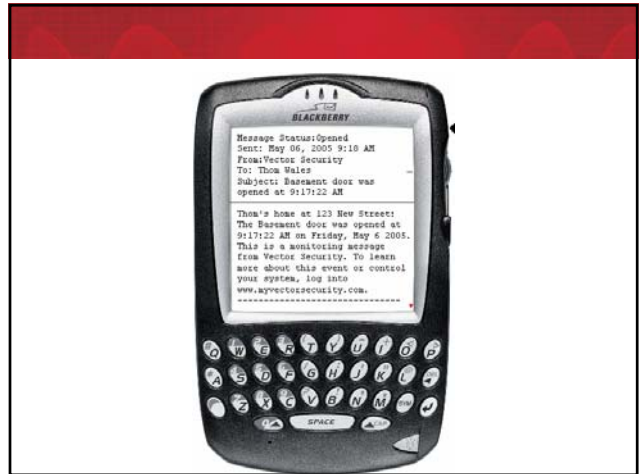
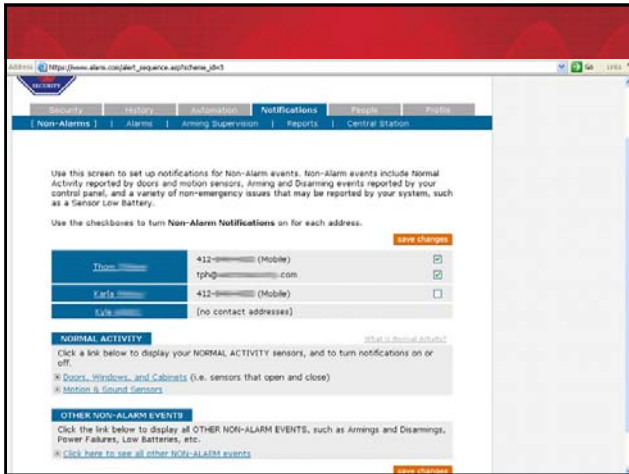
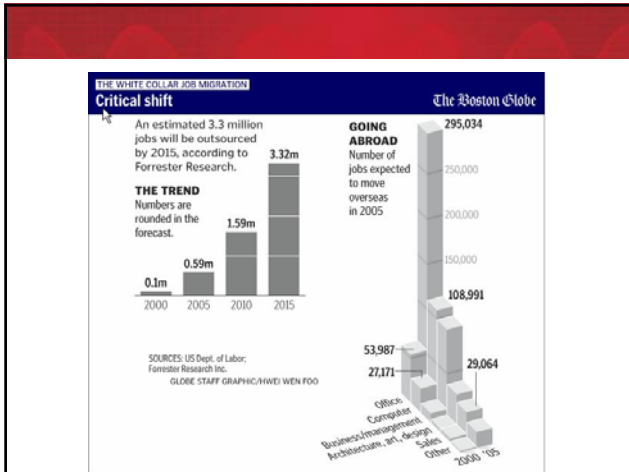


Figure 1: Web Connection Speed Trends - Home Users (US)  
Source: Nielsen/NetRatings



## Operators

- Workforce pool changing
  - Single Parent Families
  - Minorities
  - Older Workers
- Increase in technology oriented monitoring services results in higher training demands
  - Computer skills
  - Higher skill set
  - Language skills
  - Medical medication notes
- Technologies require more operator discretion
- Cost of labor increasing



- ## Interactions with Authorities
- Working with guard / private patrol services
  - Managing false dispatches
    - Real time “counts”
    - Customer notifications
  - Electronic Data Exchange with PSAP

Need to insert slide of MMM screen

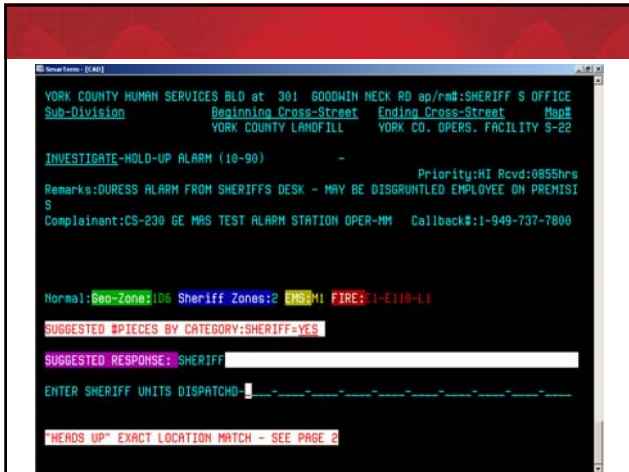
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YORK COUNTY HUMAN SERVICES BLD at 301 GOODWIN NECK RD ap/rm# SHERIFF S OFFICE
Sub-Division Beginning Cross-Street Ending Cross-Street Map#
YORK COUNTY LANDFILL YORK CO. OPERS. FACILITY 5-22

INVESTIGATE-BURGLAR ALARM (10-90) - Priority:HI Rcvd:0837hrs
Remarks:MOTION DETECTOR
Complainant:CS-230 GE MAS TEST ALARM STATION 0 MM Callback:1-949-737-7800

Normal:Geo-Zone:106 Sheriff Zones:2 EMS:1 FIRE:1-E110-L1
SUGGESTED #PIECES BY CATEGORY:SHERIFF=YES
SUGGESTED RESPONSE: SHERIFF
ENTER SHERIFF UNITS DISPATCHD-----
"HEADS UP" EXACT LOCATION MATCH - SEE PAGE 2

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## Facilities Management

- How will new card access boards affect your business?
- What new streams of revenue are available in Facilities Management?
- What can be monitored and controlled by new card access functionality?

## Facilities Management

- New card access boards available that allow integration with central station automation for management of facilities

## Facilities Management

- Central station software is used as main platform
- Dealers can monitor and manage customers system via automation's dealer access
- Additional RMR stream

## Facilities Management

- Attendance/Payroll Integration
- Environmental HVAC Applications
- IT Security
- Video Integration
- Point of Sale & Retail Data Collection



## Monitoring on the Move



- Business Opportunities in:
  - Emergency Dispatch
  - Asset Tracking
  - Automatic Crash Notification (ACN)
  - Hazardous Materials Monitoring

## Monitoring on the Move

- Monitoring Business Models
  - Web-Based Asset Tracking
    - Fully computer-based, without operators, low-cost, high revenue
  - Asset Tracking with Panic Dispatch
    - Computer-based with minor operator intervention, low-cost, high revenue



## Monitoring on the Move



- Monitoring Business Models
  - Emergency Two-Way Voice Dispatch
    - High volume of operator intervention, very similar to alarm monitoring
  - Emergency/Services Two-Way Voice Dispatch
    - Highest volume of operator intervention, much like alarm industry's two-way voice, low profit margins

## Monitoring on the Move



- Can a GPS device be an alarm panel?
  - In-vehicle GPS devices are hardware panels that need to be wired in
  - GPS devices have location information (zones)
  - It communicates its account number and location information
  - An automation system receives the data and follows the call list instructions

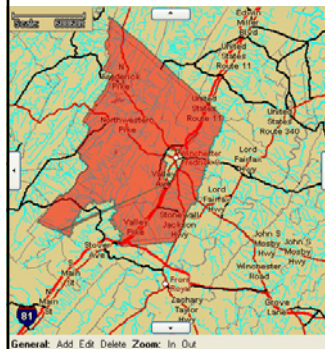
## Monitoring on the Move

- Dispatch Software
  - Alarm dispatch with authorities and responders
  - Two-way voice integration
  - Zone identification
  - PBX telephony controls

## Monitoring on the Move

- Mapping Software
  - Mapping system with multiple layers
  - On-the-fly drill down map functionality
  - Zoom & drag graphical interfaces
  - Geo-coded addresses
  - Address indexing to map components
  - Data integrity (relevant current data)

## Monitoring on the Move



- Authority Database Structures
  - Polygon application to maps
  - Multiple layering for spatial boundaries
  - Data Integrity (relevant current data)

## Monitoring on the Move

- Concierge Database
  - Quick lookup of categorized data
  - Turn-by-turn driving instructions
  - Data Integrity (relevant current data)
  - Other live information (construction, storms, backed-up traffic)



## Monitoring Energy Consumption

- Monitoring electricity usage for billing and consumption limitations
- Monitoring usage of water and limiting the usage

## Monitoring White Goods

- Monitoring appliances for service requirements
  - If an appliance requires service a notice is automatically sent out along with the type of service required
- Monitoring appliances for energy usage
  - The ability to shut appliances down during peak energy periods

## Monitoring Services

- Monitoring devices for service providers
  - Monitoring MTA's for cable and phone companies
  - Monitoring for low battery and device problems
  - Monitoring broadband modems for service providers

## Tracking using GPS

- GPS tracking is done using the cell network or low earth orbit satellites
- Tracking assets
  - Vehicles, boats, RV's, tools, sporting equipment etc.
- Tracking children using GPS
  - Using wrist watch
  - Using cell phone
  - GPS chips embedded into the child
- Tracking pets using GPS
  - GPS locators in pets collar
  - GPS locators embedded in the pet

Questions?

