Stanford’s 2010 PNT Challenges & Opportunities Symposium – ‘R8’

November 9, 2010
Today’s Discussion – GPS Offender Supervision

- Satellite Tracking of People LLC (“STOP”)
- The GPS “Tool” – how utilized in offender monitoring
- How GPS has impacted Offender Monitoring Industry
- Hardware
- Software
- GPS beyond just Corrections
  - Expansion from Corrections into a Criminal Justice Solution
STOP: Where We Are & What We Do

• Headquartered in Houston, Texas, with Operations Office in Reston, Virginia
• Brought together Corrections and Technology professionals
• Bought the technology and IP from General Dynamics in 2004 … and changed the industry

• Leading provider of electronic monitoring/GPS systems to corrections and law enforcement … 24x7 business
• Currently conducting business in 40+ states and several international markets
• Contracting with more than 200 Federal, state and local agencies across the U.S.
• Largest single active GPS contract with over 4,800 units for high-risk offenders

• Patent holder and developer of the original “one-piece” GPS tracking device
• Proprietary hardware and web-based software system
• ISO-9001 certified Assembly, Manufacturing and Design
• Original Equipment Manufacturer of all STOP products
• Most experienced one-piece GPS monitoring device – 5th generation
GPS “Tool” – Uses/Benefits in offender monitoring

- **Alternative to incarceration**
  - Budget/Cost savings (small program saves over $3 million/yr)
  - Smart on Crime – “stop the cycle”

- **High Risk Offenders – intensive supervision**
  - Sex Offenders
  - Gangs

- **Behavior Modification**
  - Reintegration back into society (jobs program, crimes of opportunity, etc)
  - Getting out of the gang
GPS impact on the offender monitoring industry
(Largely driven by “How” it is used)

- GPS expanded the uses of EM for offenders
  - Previously just RF (1980’s)
  - Then two-piece GPS (mid/late 1990’s): Good technology, but …
  - Then … STOP introduced the one-piece (2005)
- “One-Piece” GPS device drove the change
  - Application to broader offender population/higher-risk
  - Address issues of two main stakeholders: Users and Legislators
- In the five years since commercializing the one-piece, industry has grown 10X in size vs prior seven years
Offender GPS Supervision Basics

• Location verification technologies
  ▪ GPS
  ▪ Cellular Network Towers
  ▪ Radio Frequency

• Communication
  ▪ Device communication modes
    — Active, Hybrid/On-demand, Passive
    — Cellular and/or landline
  ▪ Alert communication
    — Near real-time
    — Daily summary report
Hardware
BluTag® – One-piece GPS tracking device - Features

• World’s first commercially proven one-piece GPS tracking device (previously all “two-piece” devices)
• Never removed during supervision
• Battery sealed in waterproof case – waterproof to depth of 50 feet
• Weighs 6.3 oz.
• Tamper resistant fiber optic strap and clips
• Receives one GPS location point once every minute
• On-board logic and rules stored on device
• Impaired/absent GPS signals; Enhanced secondary location
• Differences with BluTag®:
  ▪ GPS shielding detection (no other device has this)
  ▪ Always looking for GPS – does not “go to sleep”
BluTag® - Why a “One-Piece” is better vs “Two-Piece”

Address concerns of Two main Stakeholder Groups

- Reduced officer workload on false alarms and inventory
  - Focus on true violations
  - Preferred by supervising agents (UC Irving Study)
  - Hard to forget/leave behind, throw, tamper
- Higher security
  - Never removed from the enrollee’s ankle
  - Track the body, not the box™

- Other Benefits:
  - Better supports community re-integration
    - Discreet in size and lightweight
RF tether options

- Only one-piece GPS device with patent-pending RF capability to tether a group or individual devices to a fixed location

- **BluHome™**
  - Customizable range
  - Landline or cellular communication
  - Battery back-up
  - Stores more than four days of data
  - Motion/Power-loss/Dial tone detection

- **BluBox™**
  - Groups or individuals
  - Impaired or absent GPS solution
  - Adjustable RF range
  - Use multiple BluBoxes to increase RF range
Special Applications - Domestic Violence

**Stalker Alert – Victim Notification Device**

- Easily fits the outside of handbag or briefcase or attaches to a belt or waistband

- “Mobile proximity zone” surrounds victim at all times, same zone exclusionary for enrollee

- RF tether to communicate in the absence of GPS or cellular communication

- Device emits audible tone and sends text message to victim’s cell phone (and to officials) when zone violation occurs

*Other Uses for “Mobile Zones” with BluTag® – Gangs ...*
Software (web-based)
Technology Infrastructure – where the data goes

- **Data Center**
  - Located in Reston, Virginia, on an Internet Point of Presence (1 of 4 nationwide)
  - Tier 4/Ditscap-certified and classified as national asset by Federal government
  - Geographic redundant location in Chicago, Illinois
  - More than 70 servers running Linux and Windows operating systems
  - Oracle Database with 30 TB of data
  - Adding 20,000,000+ records daily, averaging 602 million records monthly
  - Redundant power and communication
  - Biometric security and surveillance
  - Operational 99.99% for the past five years
- Data is archived for a minimum of seven years
- Customer retains full ownership and control of all data
VeriTracks® – Internet-based monitoring application

- Web-based
- Single system for enrollee information and users
- Nothing to install on agency network or workstations
- Receives a location points taken once per minute, plus alerts
- “Exception based” reporting
Google Maps™

- Same interface as online Google, including satellite photos
- Displays GPS and cell tower tracks
- Multiple enrollees on map
- Detail information for each location point
Zones and Curfews
Increased efficiency through “exception-based” analysis

- Circular or polygonal
  - Adjust size, location and schedule
- Assigned to one or more enrollees
- Enrollee specific schedule
History of Where the Offender Goes

- Playback tracks
  - Date/time range
  - Zoom
  - Reverse geocoding
- Trips & Visits
  - Efficient Review of where offender spends his/her time
  - Chop-Shop Sting
GPS Beyond Just Corrections

Expanding into a Criminal Justice Solution with Law Enforcement
Automated Crime Scene Correlation ("ACSC")
STOP – first to patent ACSC

- Offender commits crime
- Crime information entered into law enforcement RMS system
- Crime data is uploaded to VeriTracks
- Patented correlation engine matches crime locations to offender locations
- Report automatically generated and distributed
- Manual process available
Customized Tracking and Correlation Maps

- LAPD Examples – solving “unsolvable & unreported crimes”
- Drive-By
- Convenience Store robberies

- Solves crimes faster
- Effectively puts more law enforcement officers on the street at no additional cost
One of our Customers
Questions