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SDR 2008
Today's Unrealized Potential for Public Safety Communications

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Qualcomm, Government Technologies


ANARCHY

Voice and Data
Anytime, anywhere, over any device and any network - just like my kids have

BROADBAND Access

"Getting the Right Information to the Right Person at the Right Time"

Current Public Safety Applications

- **E-CAD**
  - PDA Web Based version of a Mobile Computer Terminal (MCT) System
    - Gives fire fighters and officers the ability to pull up incident status and run plates and people
- **ARJIS Global Query II**
  - With one query this systems checks 9 different regional systems
    - ARJIS ONS (Officer Notification System)
    - Local booking photos
    - County warrants and wanted TRO's
    - Supervised release and parolee info
    - Drivers licenses (run for validity)
- **Cal Photo**
  - DMV files and pictures
- **Position Location**
  - AVL and personal locators

Business Applications

- **Business tools include:**
  - Wireless Outlook email
  - Calendaring, tasks, notes and contacts
  - Microsoft Applications, such as Word, PowerPoint and Excel
  - Built-in 1.3 mega pixel camera gives an officer the ability to snap pictures on scene or take video clips
  - Text messaging (replacing old paging system)

SECURITY

- Currently PDA info comes from the carrier to a PD/FD Network and then out to the Internet through a 3 firewall process
- PDA's are authenticated through a AAA network - They only talk to network devices
- TREND antivirus is installed on each PDA
- Have the ability to remotely turn them off or wipe all data completely if a PDA is reported lost or stolen
- Each user is authenticated when accessing any of the police applications and all police apps are encrypted
- Installed on all PDA's is a security certificate. This encrypts the email.

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QDBS™- Cellular

QUALCOMM DEPLOYABLE BASE STATION

3G SECURE CDMA CELLULAR SYSTEM

Works in conjunction with QDBS - Broadband

> Vehicle mounted or transit case configurations
> Type 1 secure voice and data
> Clear voice and data
> 3G solution enables data speeds up to 153 kbps
> Provides CDMA2000 1xRTT, 800/1900 MHz network

Available on GSA schedule

ATIONS AND DATA
LAR CELLULAR SYSTEM

DBS) Cellular System provides secure, reliable, and responsive mobile communications technology. The system is compact, easy to operate, and easy to deploy enabling mobile clear/secure, voice and data capabilities. The system can be forward-deployed to supply vital wireless communications. The deployable base station uses proven 3G CDMA cellular technology in 1.25 MHz spectrum and supports data speeds up to 153 kbps.

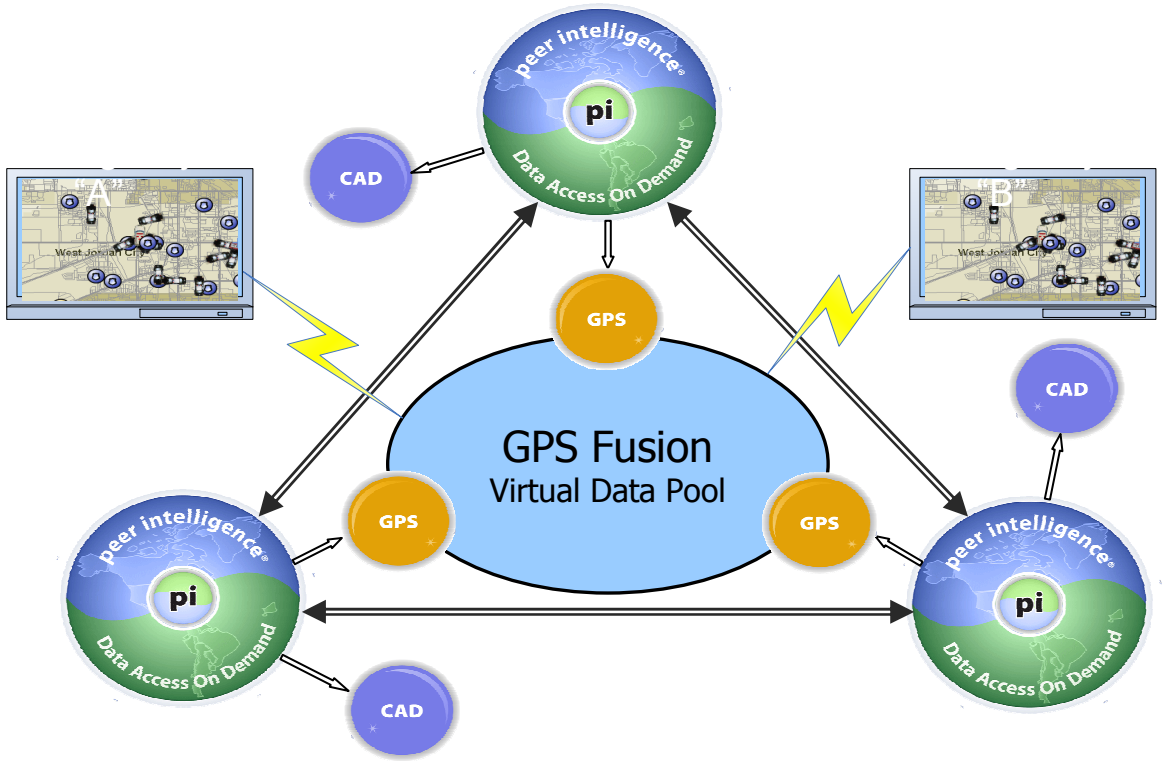
Deployable Cellular System

- Provides a mobile solution for tactical or first responder communications
- Supports pico-cells and macro-cells for varying coverage area and capacity
- Supports Network Centric Operations of forward deployed radio access nodes
- Operates Stand-alone or Interfaces to commercial or private networks
- Utilizes All-IP interconnectivity between components
- Supports QSec®2700 Type-1 certified phones

Rules Based Sharing Through Data Normalization

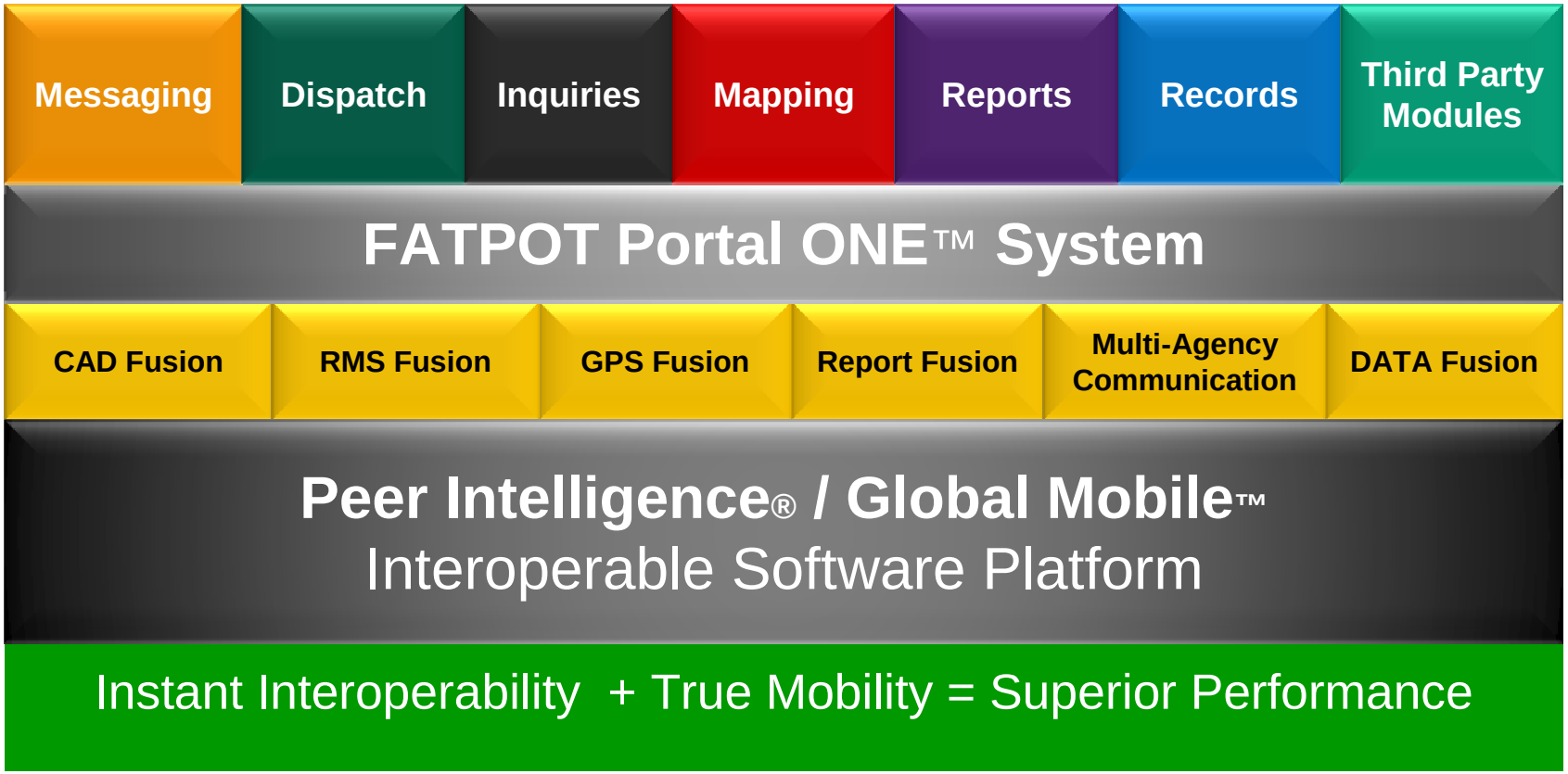
FATPOT – Interoperability Partner

Peer Intelligence (PI) platform is the premiere software solution enabling disparate data (CAD, RMS, AVL, Messaging, Data Sets) to be efficiently accessed and shared across multiple interests.



FATPOT

Peer Intelligence provides the platform for interoperability across a wide range of public safety needs



What else… You ask?

SMART Band-Aids ©

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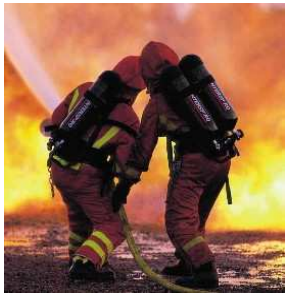
Urgent Care

- Identity
- Heart rate
- Respiratory rate
- ECG
- SPO2
- Temperature
- Blood Pressure
- Motion

Chronic Care

- Compliance
- Heart Rate
- Blood pressure
- Hydration
- Pressure
- Weight
- Ischemia
- Motion
- Identity

Occupational

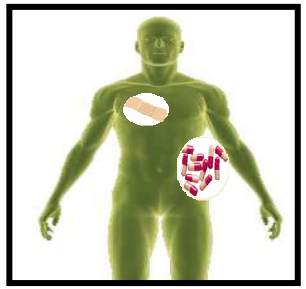


- Heart rate
- Respiratory rate
- Motion
- Temperature
- Hydration
- Electrolytes
- Identity

Fitness

- Heart rate
- Respiratory rate
- Distance/Steps
- Speed
- Elevation
- Motion

Therapeutic



- Compliance
- Heart Rate
- Blood pressure
- Hydration
- Pressure
- Weight
- Ischemia
- Drug Delivery
- Identity

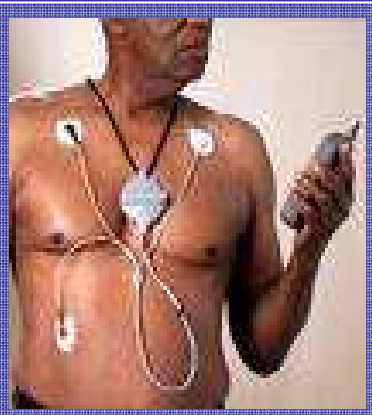
Diagnostic

- Compliance
- Heart Rate
- Respiratory rate
- Motion
- Temperature
- Blood pressure
- Hydration
- Pressure
- Weight
- Ischemia
- Gait
- Identity

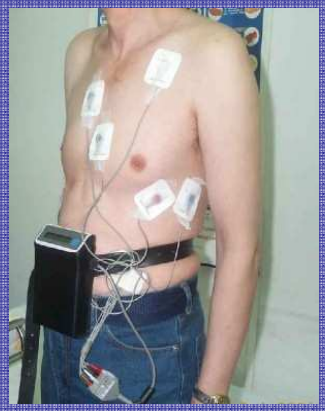
Wireless Sensors Leveraged Across Many Different Applications

CARDIONET

Remote Diagnostics Using Cellular Technology



CardioNet Wireless Solution



Traditional Holter Monitor Solution

"CardioNet proved nearly 3x more effective than LOOP event monitors for diagnosing clinically significant arrhythmias."

-The Journal of Cardiovascular Electrophysiology

Location, Location, Location

Despite significant demand, challenges with dedicated tracking, monitoring and recovery devices restrict mass adoption:

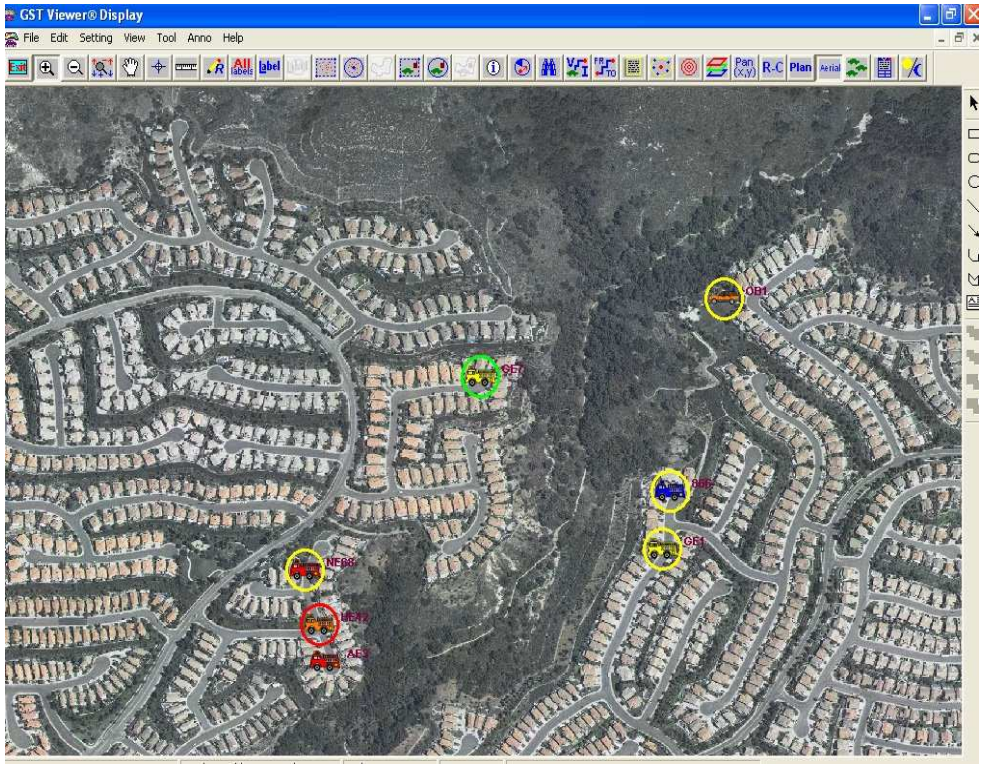
inGeo™

inGeo addresses these challenges through:

- – Total cost of ownership (device and service costs)
- ✓ Competitive cost of the device & monthly service
- – Battery life
- ✓ Optimized power performance
- – Size
- ✓ Small form factor
- – Ease of use & deployment
- ✓ Complete turn-key approach

Southern California Fire 10/22/07

Multiple Departments



Putting it all Together

- **Bio-sensors**
- **Connected to network**
- **Showing location and history**
- **Individualized data**
  - Picture
  - Bio-sensor readings
  - Initial Information
  - Reaching into disparate data sets to retrieve medical history
- **Visualized through a common interoperable user interface**
- **With automatic notifications if conditions are met**

The Future

- Enhanced Security
- Priority Access
- Enhanced LBS
- Video Downlinks
- Fixed Video Access
- Asset Tracking
- Don’t Fall Behind

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San Diego Wildfires