

LocalEyes

Mobile Reporting





Mobile Reporting by First Responders

Ubiquitous Computing

2006

2.6 Billion Subscribers

1 Trillion Text Messages

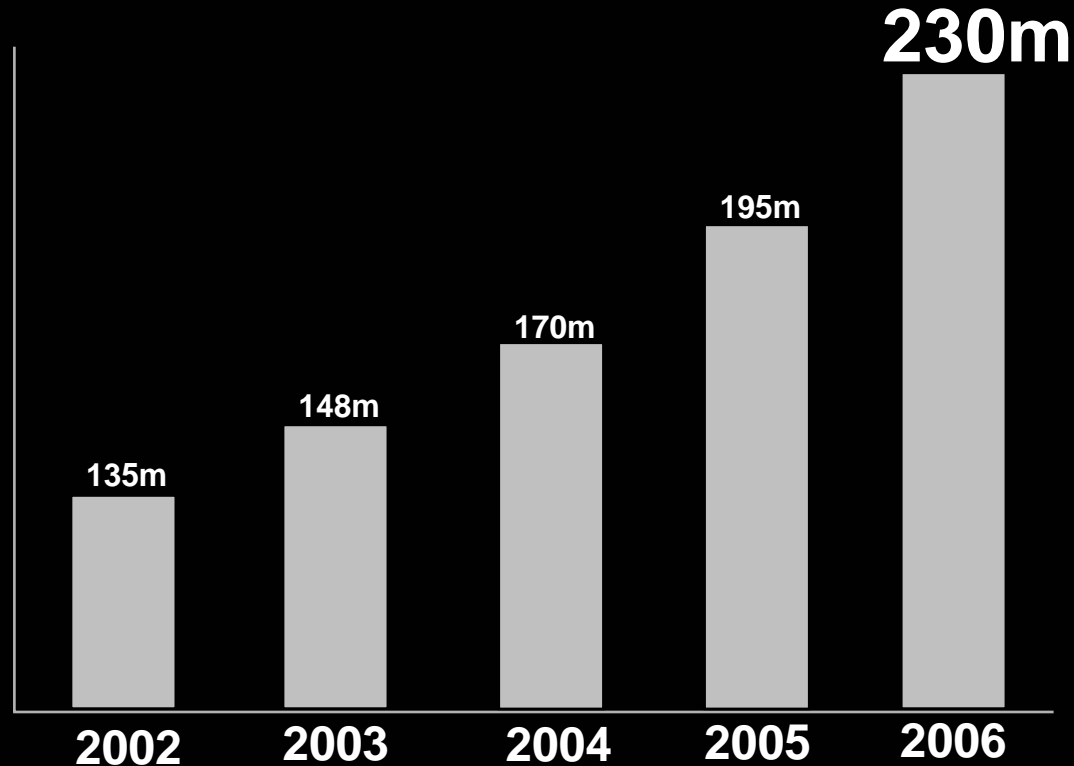
2010

4 Billion Subscribers

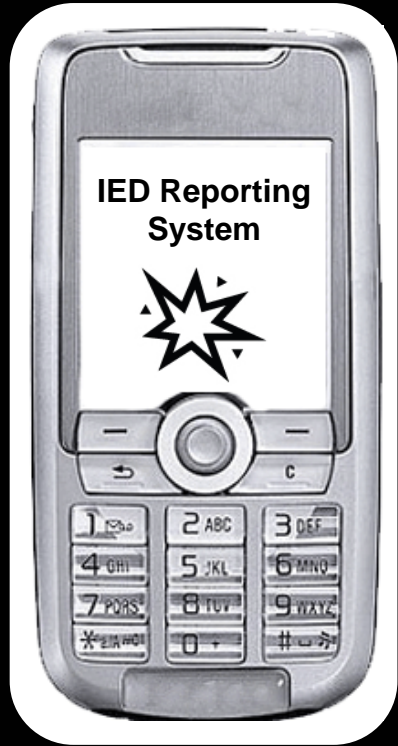
2.3 Trillion Text Messages

Ubiquitous Computing

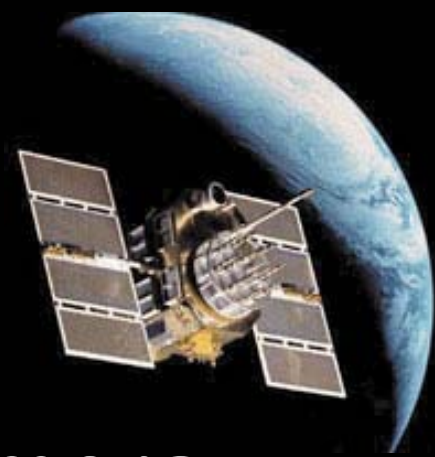
Cell
phones
in **U.S.**



Integrated Technology..



Cell Phone, GPS, Camera



... Public Infrastructure

Unlimited Applications



First Responders



Real Time Alerts



Area Alert



Force Tracking



Rescue



Terrorist Activities

LocalEyes Vision

- Mobile reporting with global scale
- Machine-to-Machine reporting
- Rapid response, flexible platform
- Low cost, leverage existing infrastructure
- Ability to transition system to locals

Enable local population to be our 'sensors'... our *local eyes*

LocalEyes Scenario

1 Identify Activities



- Policing
- Monitoring Ports and Infrastructure
- National Security
- Terrorist Activities
- Disaster Relief
- Emergency Management
- Civil Unrest

2 Design Reporting Application Online

A Operations Center determines reporting need



B Define event types



Suspicious Package



Suspect



Bombing



Protestors



Fire



Suspicious Vehicle



Amber Alert



Medical Support Request



Road Closure



Traffic



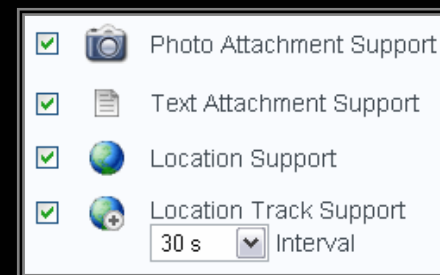
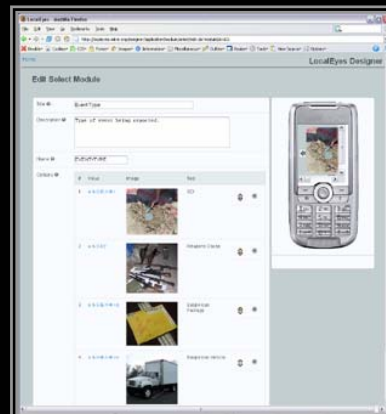
Accident



Auto Theft

C Configure features

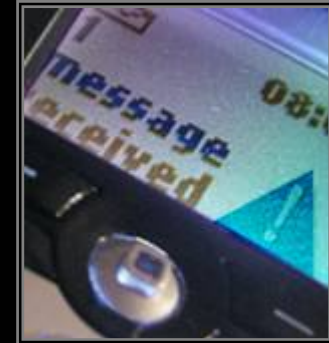
- Photos, Video
- Text
- GPS Force Tracking



3 Deploy Application



Operations Center
PUSH applications to
phones



Users **PULL** applications
directly from phones



4 Users Report

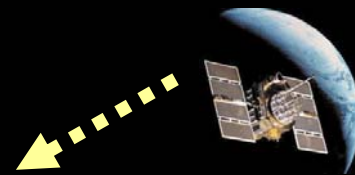
A Start LocalEyes application



B Choose event type from list ...

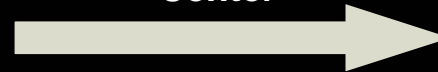


C Attach photo, video, text (optional)



GPS support provides location

Submit to Operations Center



D

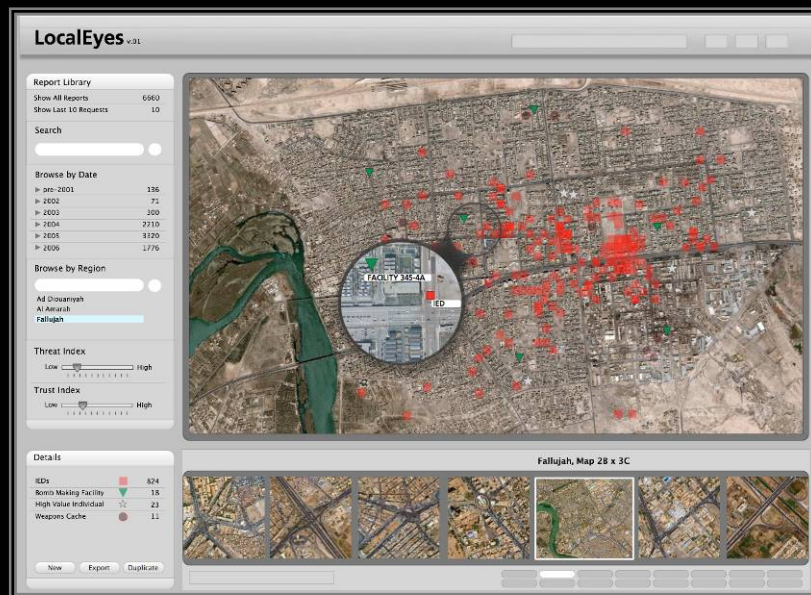


5 Visualization, Analysis

Operations Center receives real-time reports



Visualize & Analyze



Integrate with other Command and Control Systems



Mission Planning Systems

Battle Command Information Systems

Google Maps

Google Earth

6 Application Updates



Field conditions change rapidly

- **New event types**
- **Different bombing suspects**
- **Recovery efforts change**

Operations center can respond with application changes in minutes....



Mobile user is automatically updated during next event report.

Boston - 4th of July

Boston 4th of July

Massachusetts State Police

- Piloted LocalEyes reporting capability
- 350,000 in attendance



Integrated Reporting

- Unified Command Center
- Massachusetts State Fusion Center

Boston 4th of July

Event Reporting

- Suspicious Person, Vehicle
- Unattended packages
- Missing Children



Boston 4th of July

Future Collaboration & Operations

- Massachusetts Emergency Management Agency
- Boston EMS



Visualization

Center Map

Export : GPX, KML, RSS, JXDM, XLS, LEML, Virtual Earth

LocalEyes Visualization

LocalEyes Submission
 2007-07-03T20:53:15Z
 EVENT-TYPE = [ACCIDENT]

delete

Start 07/04/2006
 End 07/09/2007

July, 2007

wk	Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	1	2	3	4	5	6	7
27	8	9	10	11	12	13	14
28	15	16	17	18	19	20	21
29	22	23	24	25	26	27	28
30	29	30	31				

Select date

- 2007-07-04 22:46:18
- 2007-07-04 22:29:53
- 2007-07-04 21:55:18
- 2007-07-04 20:42:15
- 2007-07-04 20:39:55

Questions or Comments? [Contact Us](#)

Visualization



Summary

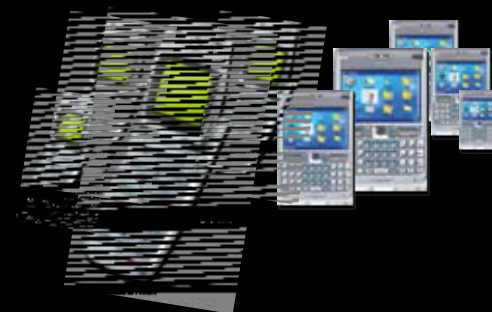
Different way of thinking

Information from first responders,
patrol units, and civilians



Different way of building

Rapid deployment, flexible infrastructure
Matches changing field conditions



Technology can integrate with
Command and Control Systems to
improve current practices



LocalEyes

Team

Scott Hume, Project Lead Engineer

Brandon Wolfe, Technical Lead