



# Leveraging Commercial Wireless Services for Public Safety

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# What is 4G?

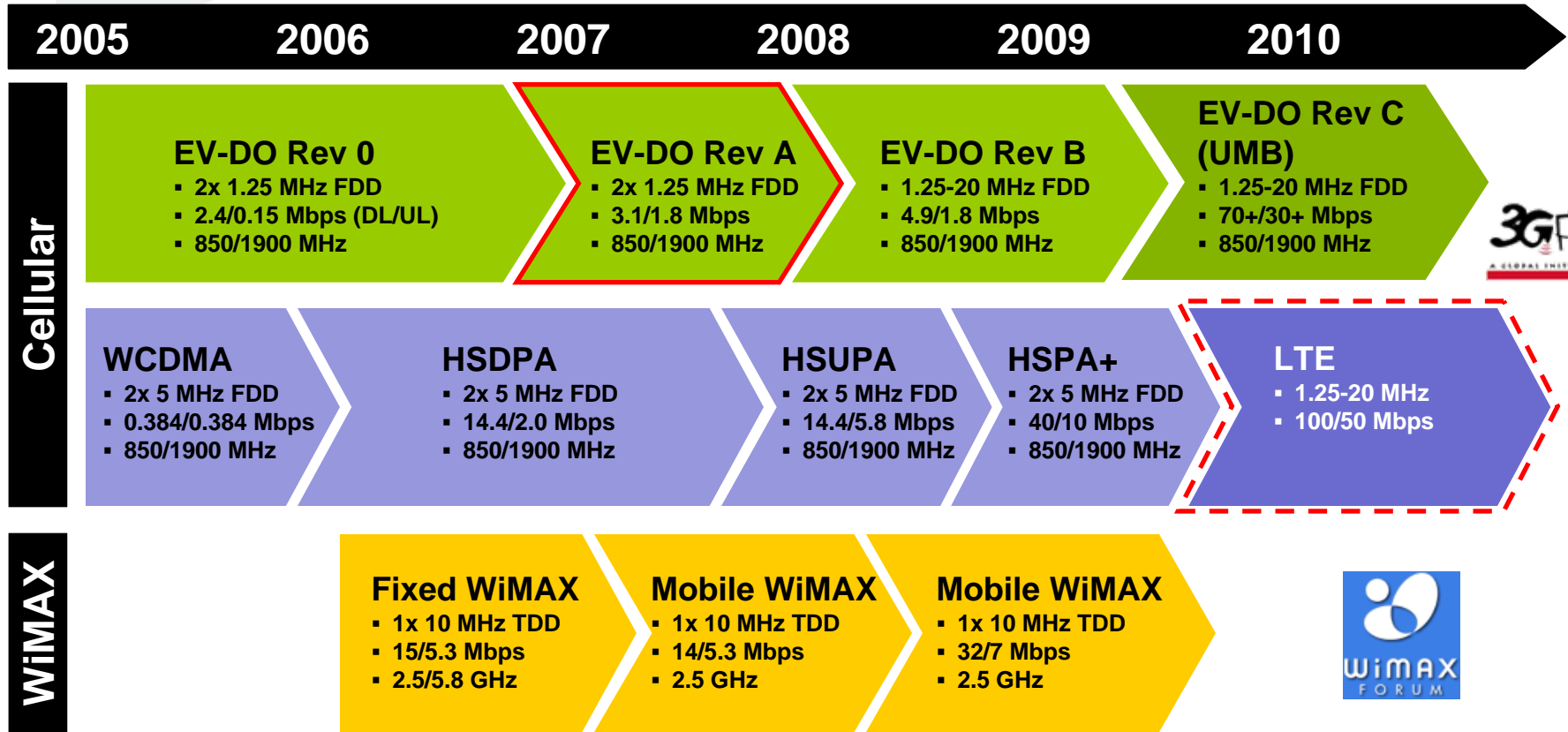
- New Technology Advancements
  - Radio Technology
    - Orthogonal Frequency-Division Multiplexing (OFDM)
  - Antenna
    - Multiple Input-Multiple Output (MIMO)
- Improved Performance
  - Speed
  - Latency
- Broader Device Portfolio
- Expanded Service Options
  - Machine-to-machine
  - Real-time video, etc.

4G Options
▪ UMB
▪ LTE
▪ WiMAX

Ultra Mobile Broadband – UMB (TIA)  
Long Term Evolution – 3GPP  
WiMax – WiMax Forum



# Wireless Progression



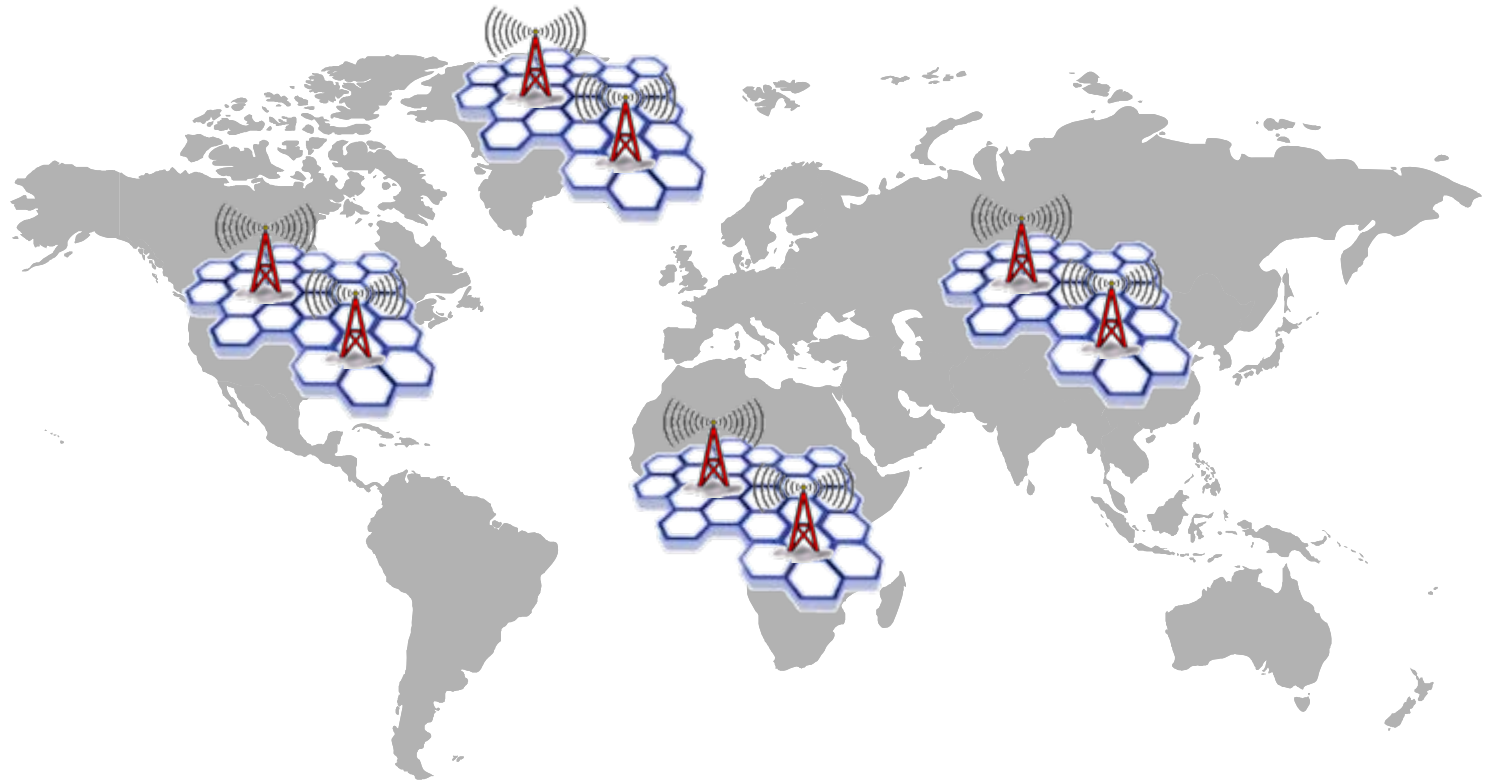
**Note:** All speeds are theoretical maximums. Device and deployment configurations will constrain attainable throughput capabilities.





## LTE Drivers

- Economies of scale
- Widespread Global roaming
- Device ubiquity
- Performance





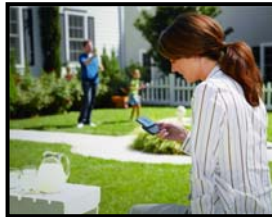
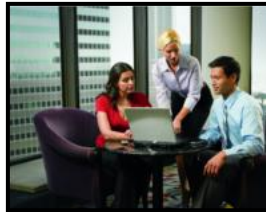
# LTE – Next Gen Wireless Broadband

## Broadband Mobility



- Music
- Advertising
- Browsing/  
e-mail
- Rich call
- Movies
- TV
- Video conferencing

## Wherever You Are



## Global Roaming



## Innovative Devices





# Public Safety Solutions

## Law Enforcement:

- **MobileCop®** - Secure wireless query and messaging solution (Laptops / Tablets) with customizable CAD interface option for Law Enforcement
- **PocketCop®** - Secure wireless access to State and Federal/Local Databases using handhelds devices (BlackBerry, Windows Mobile, Palm)
- **Field Interview / TSTOP** – Wireless Field Interview / Traffic Stop Reporting
- **MobileOffice™** – Field Data Collection and Reporting (Incidents / Accidents / Citations)
- **MobileSRO™** - Secure wireless query and messaging solution (Laptops / Tablets) with customizable CAD interface option for Non-Sworn School Officers
- **Patrol Journal™** – Mobile Field Officer Activity Reporting
- **InfoExchange™** - Provides query access to RMS and other local databases
- **MobileNavigator™** - Dispatch and in-car mapping solution
- **MobileRescue™**- Secure wireless query and messaging solution with customizable CAD interface option for Fire and EMS
  - Special Solution for Universities using MobileCop and PocketCop





# Public Safety Solutions

## Law Enforcement:

- **Fatpot™** Integrated CAD
- **VisionAir©** - Event based video
- **ShotSpotter ©** – Field Data Collection and Reporting (Incidents / Accidents / Citations)
- **CriticalIRF™** - IP based interoperation to LMR
- **GST™** – Situational Awareness



# BEYOND EMAIL SOLUTIONS

- Wallace Wireless
  - COOP
- Onset Technology
  - COOP
- Vaultus Technologies
  - Software enables business applications on BlackBerry and Windows Mobile devices
    - Knowledge dashboards, IT Help Desk, Field Service
- Bio-key & INFO-COP
  - Public Safety Software Applications on BlackBerry, Windows Mobile devices, Laptop and Tablet PCs
- IPVision Software
  - Risk Management software security solution using Smart IP based camera(s) set at a perimeter to detect movement





# DOT Infrastructure



- Business Problem
  - DSL integrations were costly and time consuming
    - City permits and construction added 3 – 5 months and \$10,000 - \$25,000 to the cost of each product
    - Needed a more cost effective and quicker way to backhaul images from its street corner cameras
- Solution
  - Verizon Wireless Ravens integrated with Laser Craft's digital traffic cameras
- Benefits
  - Quicker and less expensive deployments
    - Shortened process by 3 – 5 months and reduced cost by \$10,000 - \$25,000
  - Streamlined operation
    - Negated the need for manual image downloads on site





# Parking Management

- Customer
  - Various City and County Governments
- Business Problem
  - Parking meters are expensive to maintain and service (Labor Costs)
- Solution
  - Integrated Wireless Parking Meters
  - Solution includes
    - CDMA Embedded modem
- Benefits
  - Elimination of manual parking meters and faster collection of monies.
  - Ability to log broken meters remotely
  - Ability to offer multiple payment options (credit/debit)





# PocketCop – Capability & Use

PocketCop is fully compatible with BIO-key's MobileCop, giving any user who does not work in a vehicle access to the same functions as laptop users



- DMV query
- Warrant Query
- Gun inquiry
- Crime Scenes
- FI Data Collection
- Auto Theft Investigations
- Mobile Command Post
- Special Operations Teams





# Beyond Email Solutions – INFO-COP



- **Public Safety Application Allowing Direct Wireless Access to:**

- Plate Lookups
- NCIC Checks
- HAZ MAT Lookup
- Chat
- Messaging
- Real-time Requests

- **Same server software for all client devices:**

- BlackBerry
- Windows Mobile
- Laptops and Tablet PCs





**Thank You!**

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# 4G License Map

