



## Terrestrial TV in the US Today

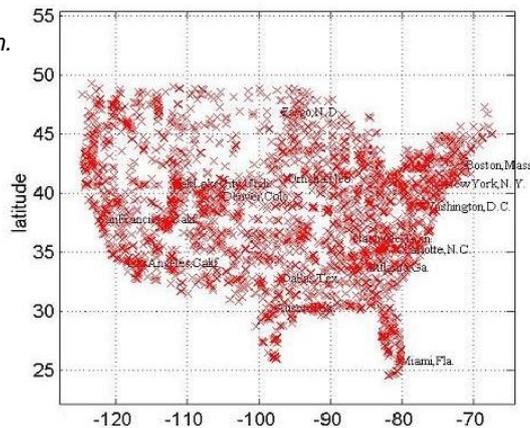
*Highly correlated with population density and broadband penetration.*

*2800 transmitters broadcast 4500 channels.*

*Multi-frequency networks, low-frequency signals for in-building penetration.*

*6MHz wide, 19.2Mbps throughput.*

*Robust, distributed network with backup power.*



## Broadcast TV Applications

### Broadcasting

- Traditional broadcast business: one-to-many, free (ad-supported), >98% population reach

### Datacasting

- Public safety: e.g., FEMA/APTS DEAS project, traditional EAS
- Commercial: e.g., Moviebeam

### Value-add: Positioning, Timing, Frequency

- Precise time transfer
- Geolocation: standalone or hybrid with other signals
- Frequency calibration
- Terrestrial GPS backup





## 2009: Year of Transition

- February 2009: Analog transition complete
- ATSC-M/H:
  - Addresses mobile/portable user
  - Cars, notebooks, cellphones
  - Back-compatible with traditional ATSC
  - Broadcaster-backed
  - 25-50M subscribers in anticipated by 2011\*
- TV tuner ICs, modules ever more affordable

*\*NAB FASTROAD study, January 2008*



## Conclusions

- Robust infrastructure
- Near-ubiquitous reach
- Affordable components
- Single infrastructure, multiple applications
  - Broadcasting
  - Datacasting
  - Public safety: EAS
  - Location, timing, frequency (E911 / LBS)
- Proven business model – not going anywhere

