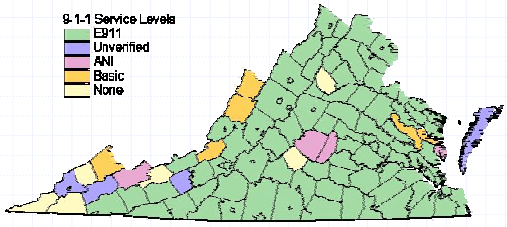
E-911 Update

Steve Marzolf, E-911 Coordinator
Virginia Division of Public Safety Communications
www.va911.org
smarzolf@dtp.state.va.us

Local Issue

- Provision of E-911 is a local issue.
- 113 localities provide wireline E-911.
- 21 localities do not have wireline E-911.
- Wireless Board and DPSC provide funding and technical support when asked.
- Timing, priority, and effort must come from the locality.

Wireline E-911 Status



Funding Provided

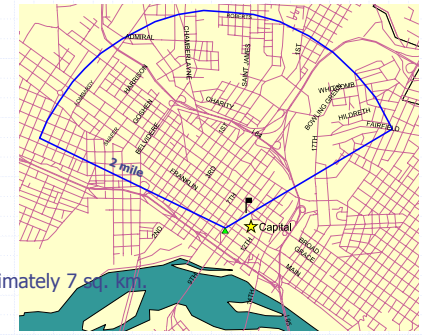
FY	PSAPs	Localities Served	PSAP Funding
2000	23	23	$6,186,607
2001	40	50	$8,547,064
2002	83	92	$17,722,676
2003	125	131	$22,564,509
2004	116	121	$18,978,045

Total provided to date: $58.5 million

Wireless Enhanced 9-1-1

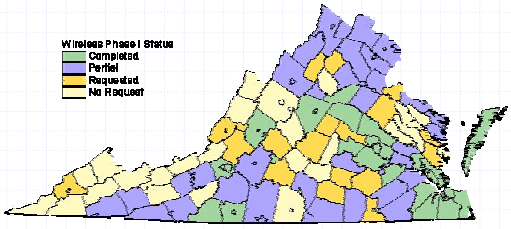
- Phase 0
  - Locality taking the call typically on a dedicated seven-digit line.
- Phase I
  - Call is routed through the 9-1-1 system based on the cell site/sector receiving the call and provides the cell site information and call back number.
- Phase II
  - Same routing as Phase I, but latitude/longitude is provided within acceptable error rate.

Phase I Accuracy



Approximately 7 sq. km.

Wireless Phase I Status



- 34 localities deployed with all providers.
- 52 have implemented with at least one.

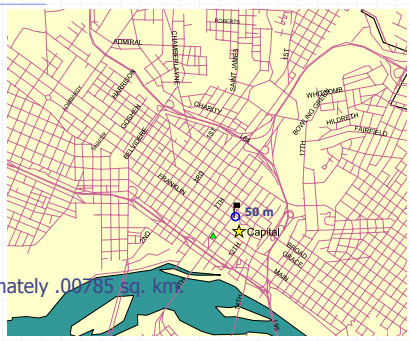
Phase II - Technology

- Handset based solution
  - GPS
- Network based solution
  - Time Distance of Arrival
  - Angle of Arrival
  - Signal Pattern Matching

Phase II - Accuracy

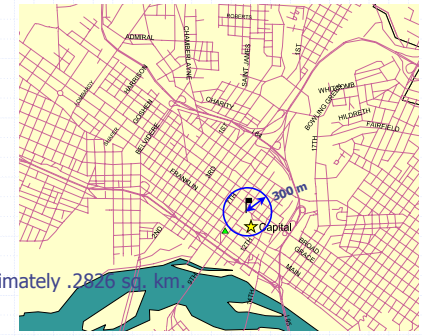
- Handset Based Solution
  - 50 meters / 67% of the calls
  - 150 meters / 95% of the calls
- Network Based Solution
  - 100 meters / 67% of the calls
  - 300 meters / 95% of the calls

Phase II – Handset 67%



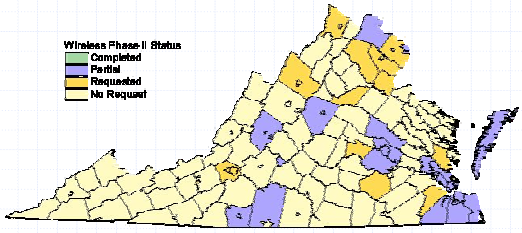
Approximately .00785 sq. km.

Phase II – Network 95%



Approximately .2826 sq. km.

Wireless Phase II Status



Project Management

- $32K maximum cost recovery for project management for each Phase.
  - 40 hours per month for 8 months @ 100/hour
- Full cost recovery for regional project management efforts.
  - Consultant selected by Region
  - Invoiced through DPSC
  - Five contiguous localities as minimum to form a region

9-1-1 Network Design

- 22 - 9-1-1 switches.
- No ability to transfer between switches.
- Wireless 9-1-1 Fund does not support the existing network.
- Task force has been formed.
- Redesign project in process.

VA911.ORG

- What's New
- Wireless
- Wireline
- Contacts
- Resources
- About
- Banner