



Geo-Targeting Enhancement Using Cell Sector and Device App Methods

September 8th , 2016

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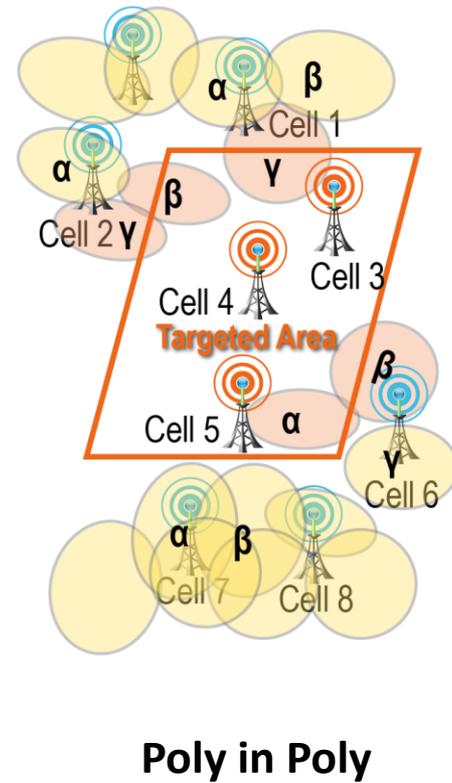
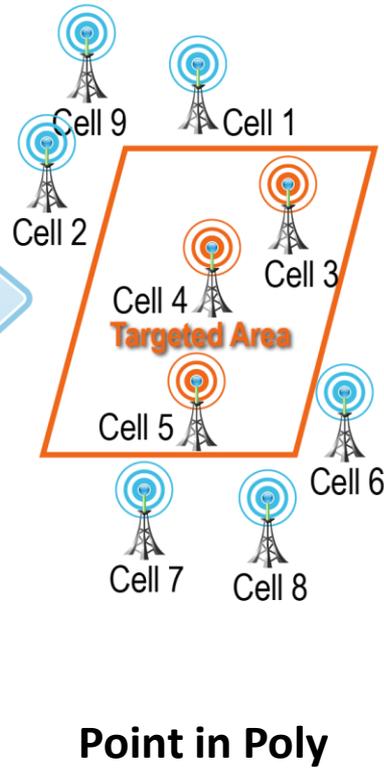
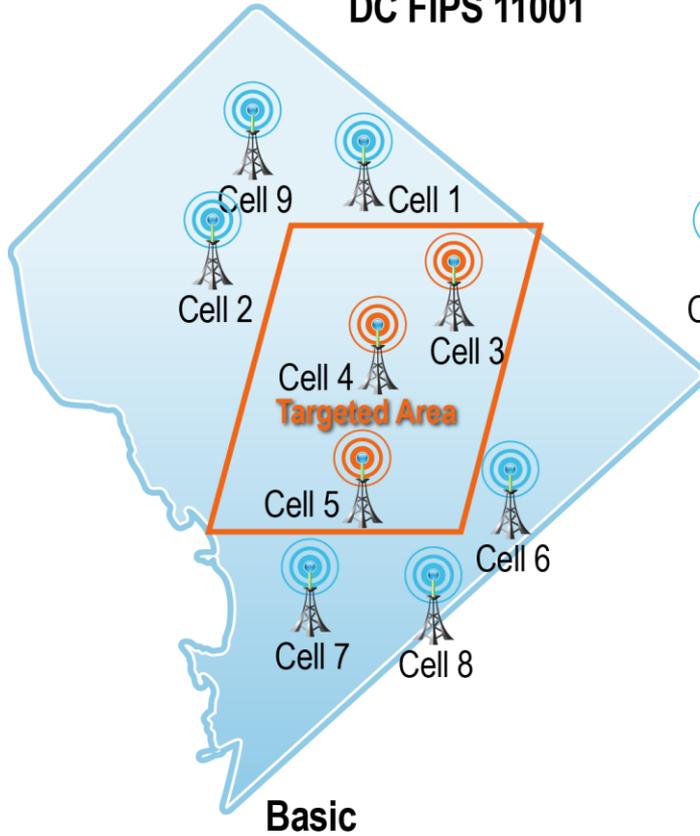


Proof of Concept Objectives

- To Prove Technical Feasibility Using Existing Technology to Enhance Granularity down to 11 meters resolution
- To Improve Geo-Targeting Accuracy minimizing “over-alerting” and “under-alerting” scenarios
- To Use both Cell Sector based Leveraging DHS research result and Device Based App as a combined Hybrid solution as a PoC in a short time
- To Maintain compatibility with the current standards and message definition
- Validate/Measure improvements over existing method.

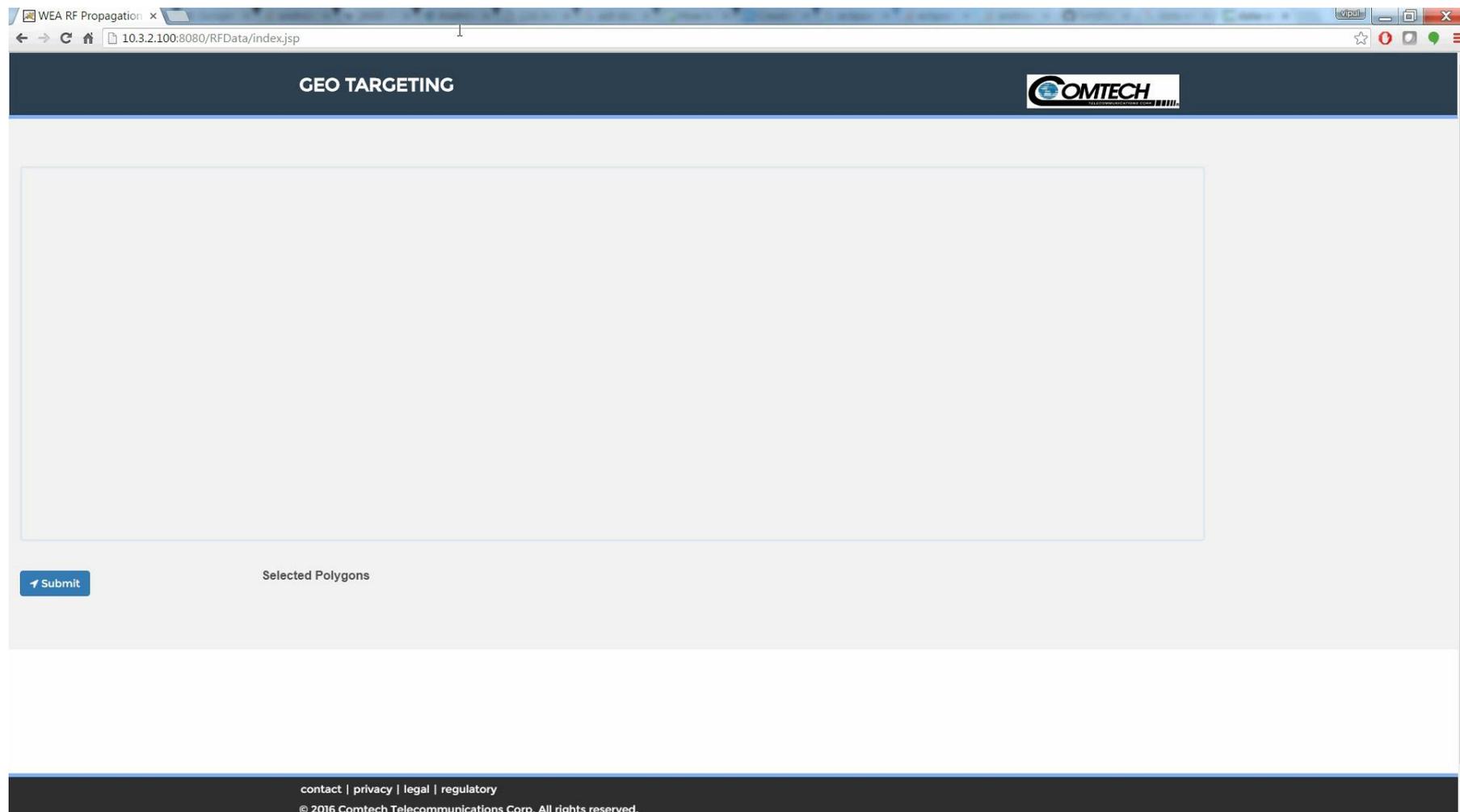
Geo-Targeting Methods

DC FIPS 11001



14_CSRIC_F-04

Geo-Targeting Area Cell RF Coverage Viewer



WEA RF Propagation x

10.3.2.100:8080/RFData/index.jsp

GEO TARGETING

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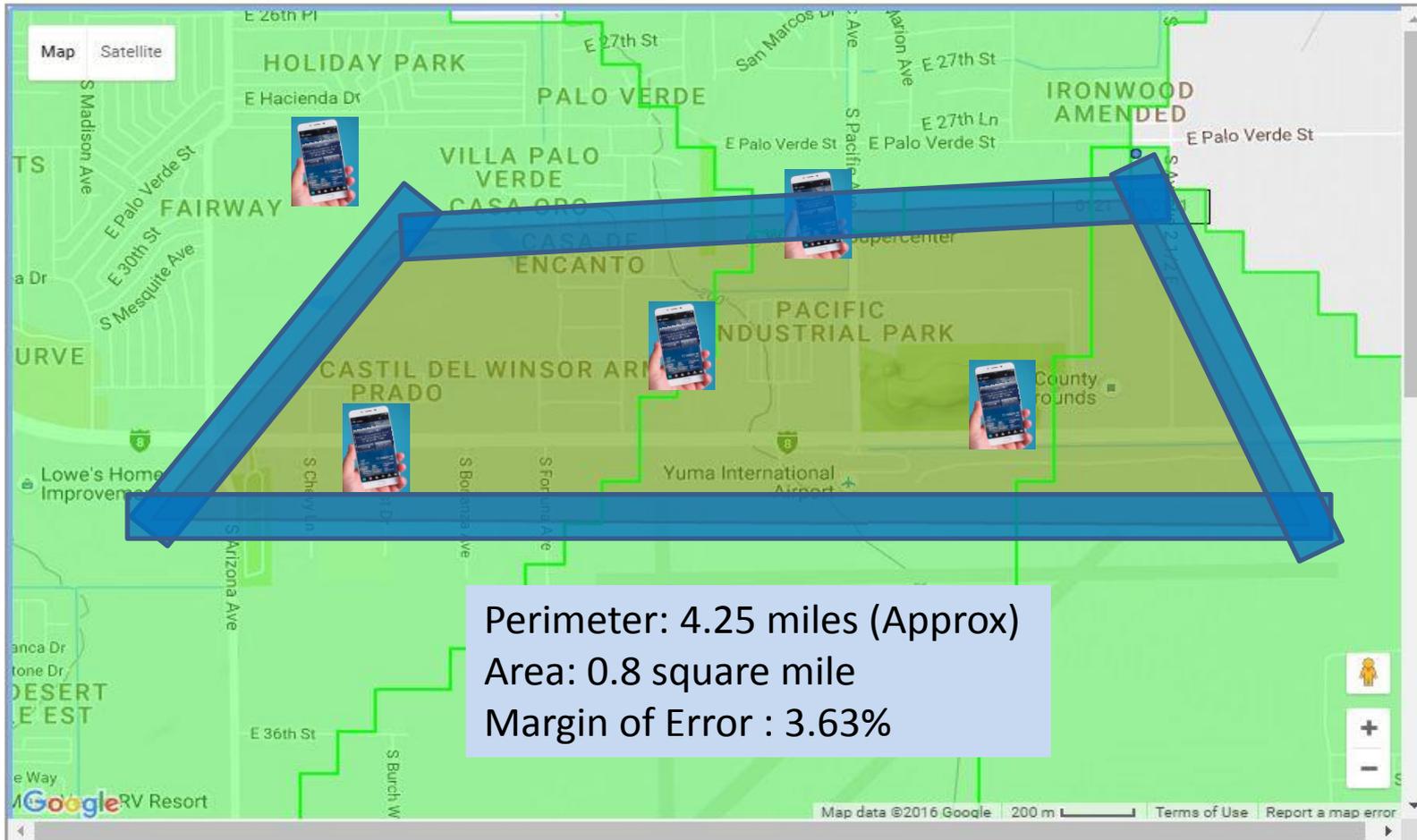
Selected Polygons

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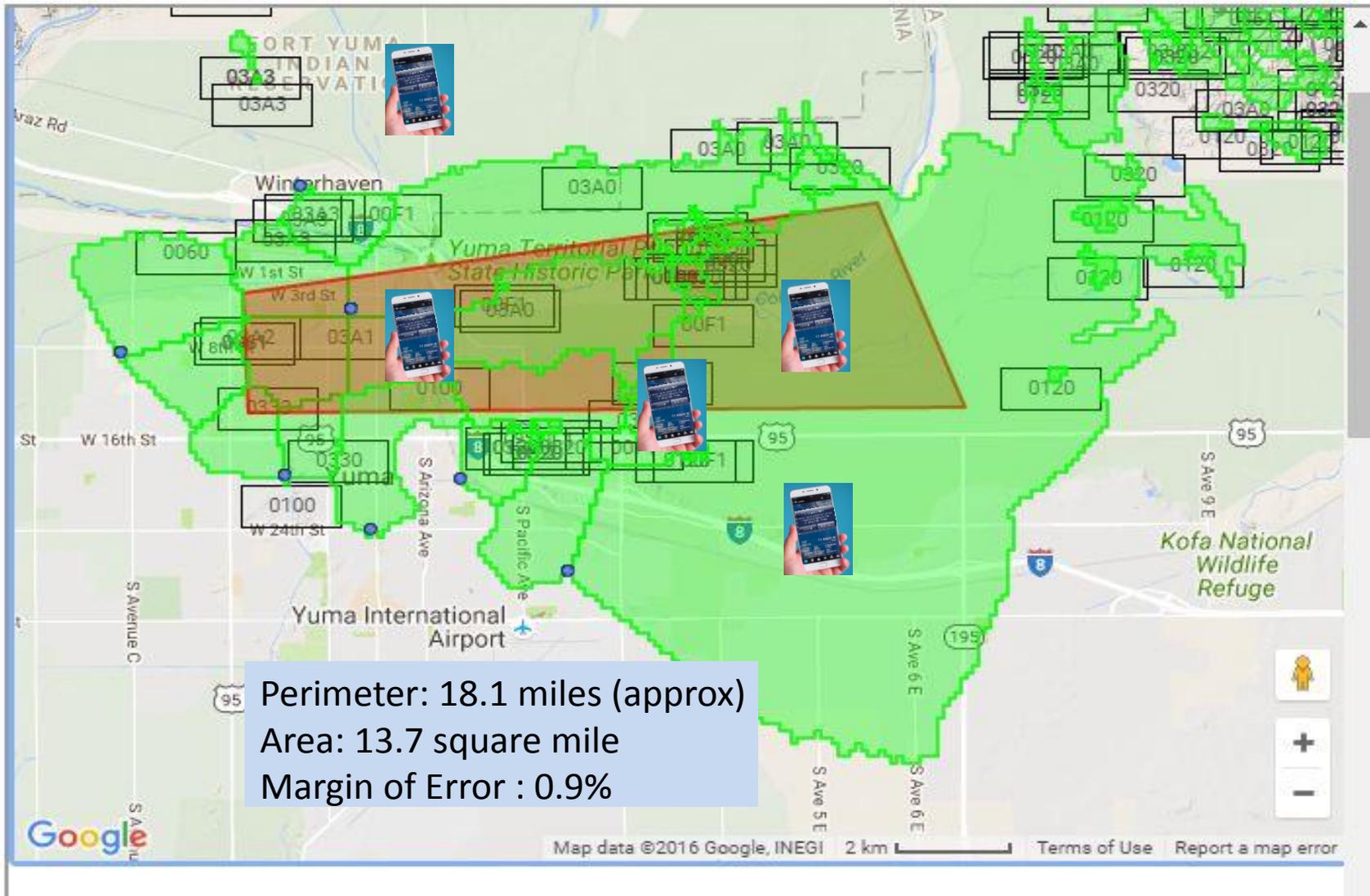
Next Level of Accuracy – Device Based

Cell Sector And RF Based Geotargeting



Next Level of Accuracy – Device Based

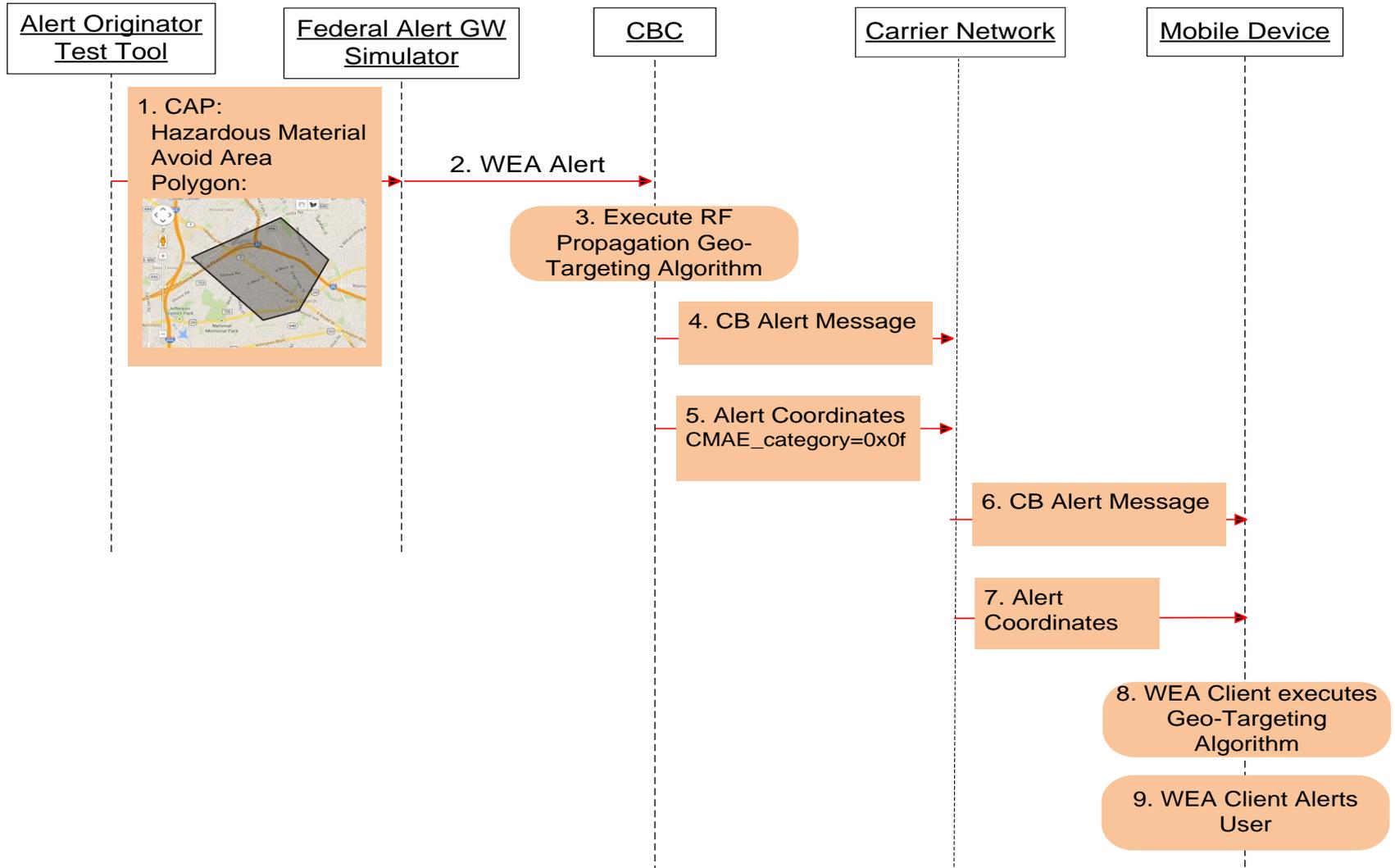
Cell Sector And RF Based Geotargeting



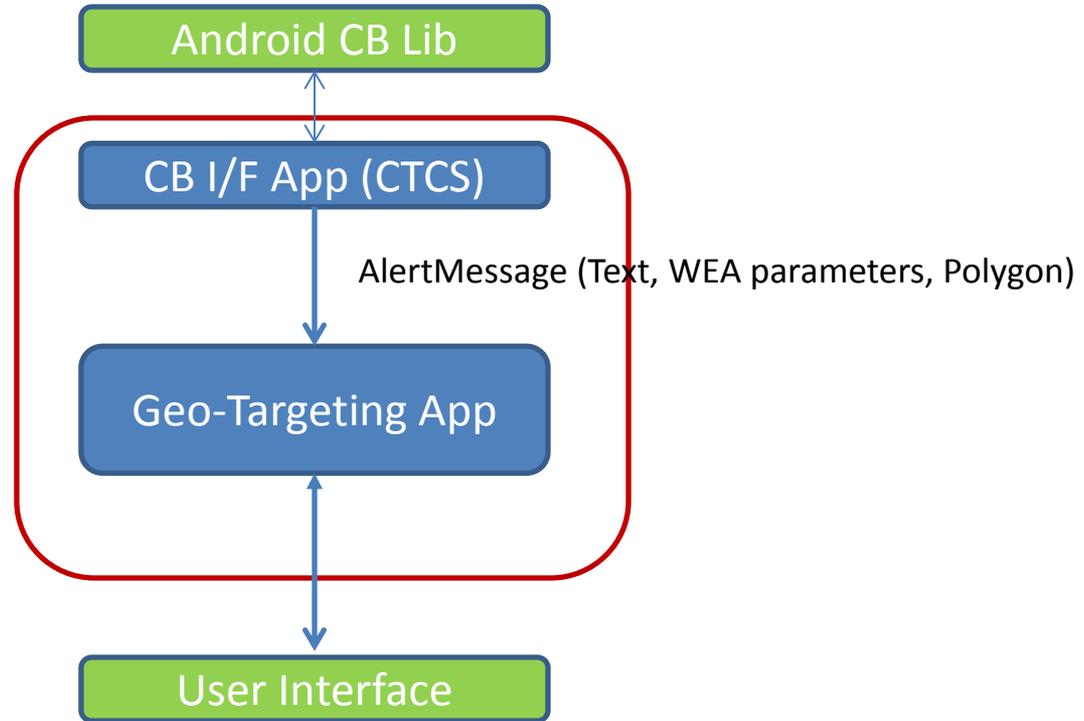
Expected Theoretical Accuracy

Perimeter (miles)	Target Area (sq miles)	Uncertainty Area	Margin of Error
4.25	0.8	0.029	3.63%
18.1	13.7	0.124	0.9%
43	110	0.294	0.3%

PoC Call Flow



APP Design



Thank You



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