



US Ignite: Track 1: Enabling Connected Vehicle Applications through Advanced Network Technology

SC-CVT: South Carolina Connected Vehicle Testbed

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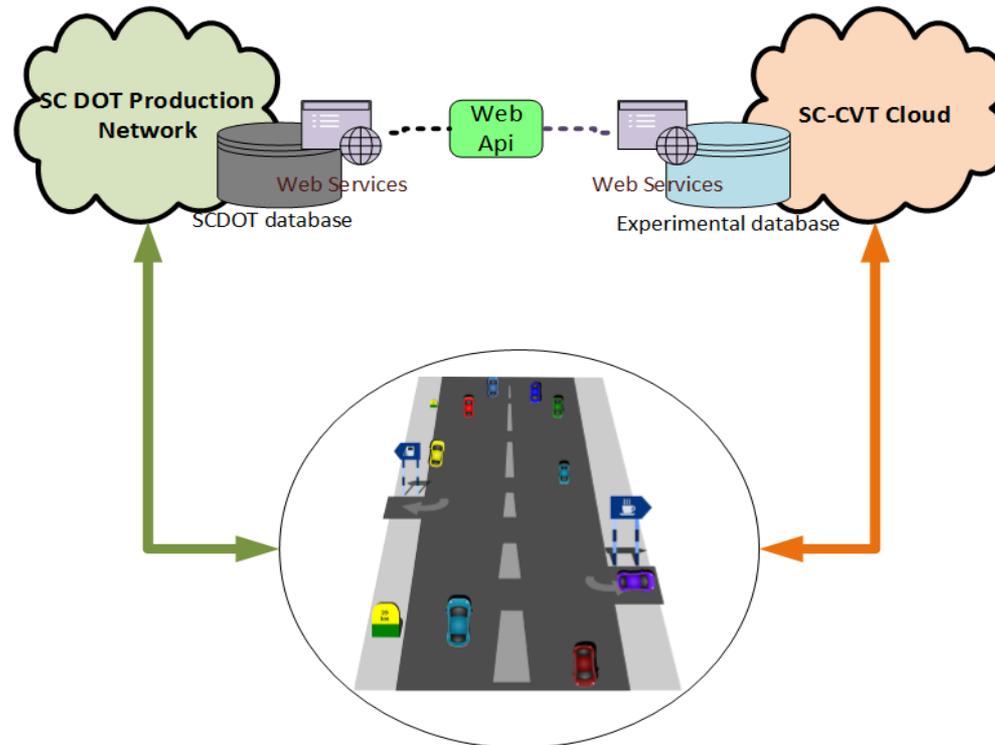
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NSF US Ignite Program

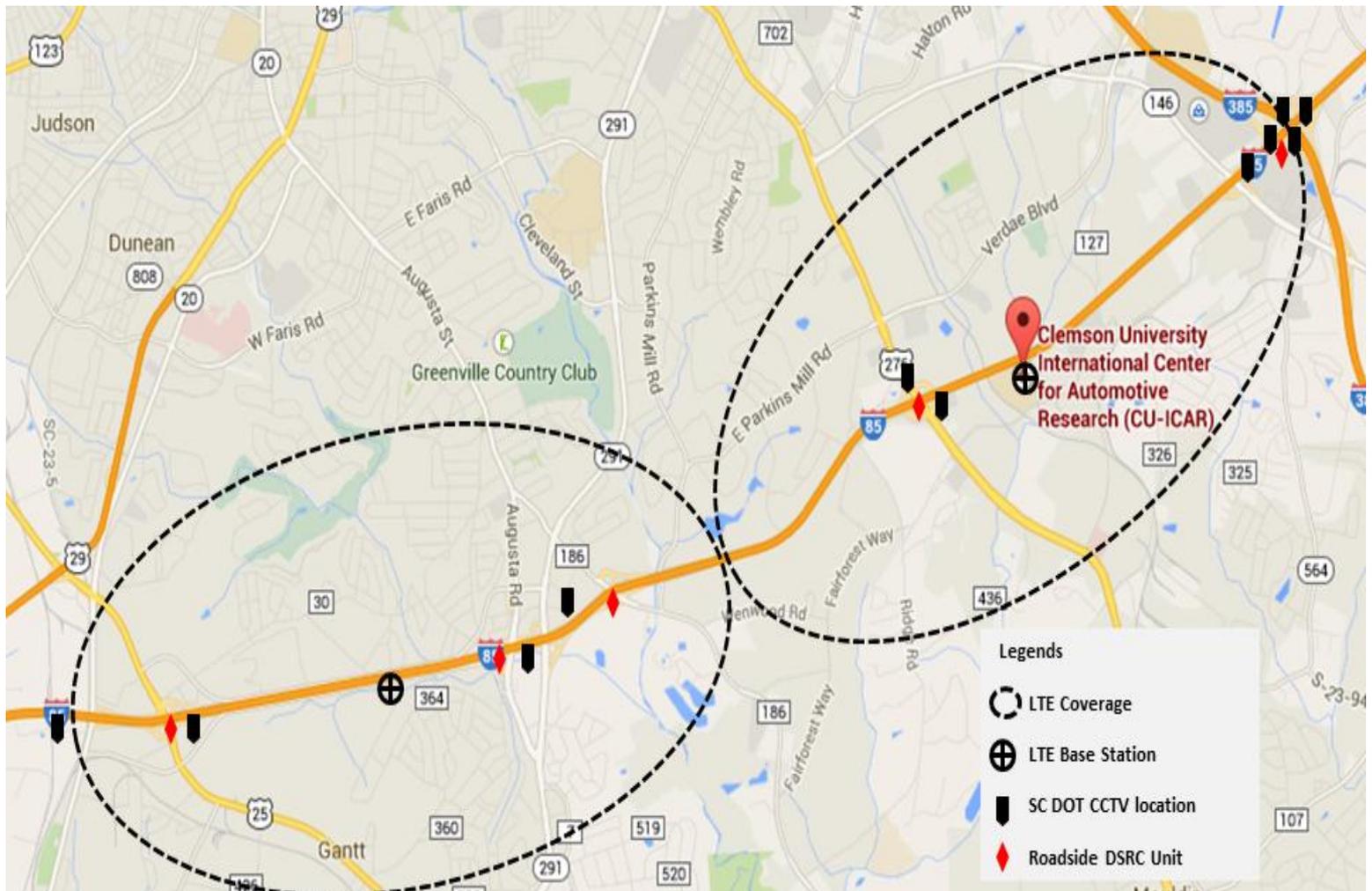
- US Ignite fosters the creation of next-generation Internet applications that provide transformative public benefit.
- By engaging diverse public and private leaders, the idea is to “ignite” the development and deployment of new apps with profound impact on how Americans work, live, learn and play.
- Applications are focused in six areas of national priority:
 - Education & Workforce
 - Energy
 - Health
 - Public Safety
 - Transportation
 - Advanced Manufacturing
- See the first 60 seconds or so of : <https://www.us-ignite.org/smartfuture2015/>

Summary of the Idea

- Advanced infrastructure: an SDN-enabled wireless infrastructure that includes DSRC, LTE, and WiFi
- Extend, develop, evaluate two Connected Vehicle application concepts in a manner that leverages advanced network infrastructure
 - Queue Warning
 - See <http://www.iteris.com/cvria/html/applications/app52.html>
 - Traffic Incident Detection



- Project will deploy DSRC/LTE/WiFi on a stretch of I85 near ICAR
- SC DOT is involved, we can co-locate on their existing infrastructure and access their dark fiber
 - We can NOT connect to their network
 - We will make CV data available to SC DOT through a web interface



Tentative location for SC-CVT

Tentative Project Plan

- Two year project (started 9/2015)
- First 6 months
 - Deploy DSRC and LTE equipment
 - Design/develop applications
- Further out
 - Development of heterogeneous wireless system with services to support CV
 - Research related to algorithms behind applications
 - Field test and demos
 - Integration with SC DOT and Public Users