FLORIDA AUTOMATED VEHICLES

ACES Breakout Session

Electric Vehicles

The Logical Platform for Autonomous Transportation

Drive Electric Florida

Electric Vehicle Transportation Center

Doug Kettles

Drive Electric Florida

Electric Vehicle Transportation Center

EVs-The Logical Autonomous Platform

[Tesla Autopilot]

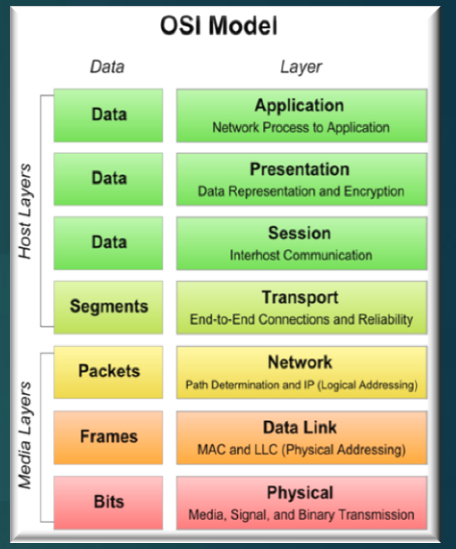
EVs-The Logical Autonomous Platform

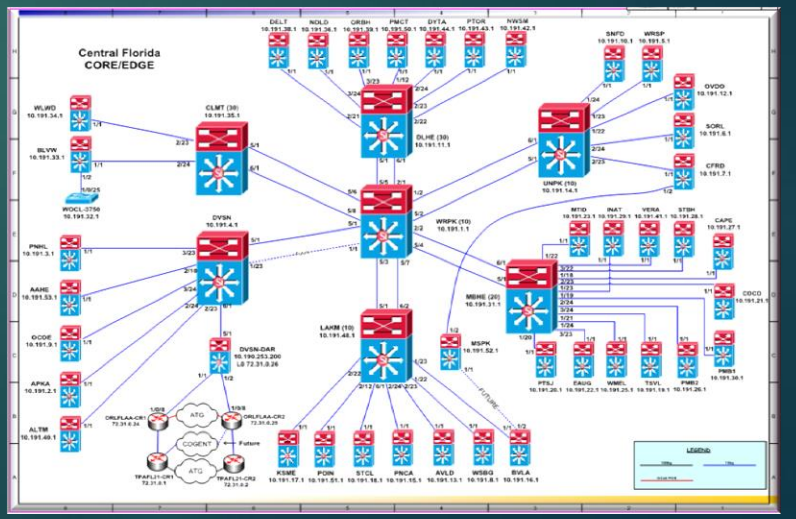
Inductive Charging (AKA, Wireless)

- *Stationary Application Stats*
  - *Power transfer efficiency 90%*
  - *3.3-20kW power*
  - *SAE TIR J2954, IEEE C95.1-2005 (EMF exposure)*
- *Commercially Available*
  - *Plugless*
  - *Qualcomm HALO*
  - *WiTricity*
- *Dynamic Inductive Charging*
  - *Up to 20kW at highway speed*
  - *Utah State University*
  - *Qualcomm/VEDECOM, France*
  - *England*

Autonomous Network Infrastructure Challenges

- *Physical Plant*
  - *Network infrastructure has to be route redundant*
  - *Network powering has to be redundant*
  - *Network electronics have to be redundant*
- *Data Transport*
  - *Spectrum and bandwidth require management and augmentation*
  - *External applications will drive localized bandwidth demand*
  - *IP, MAC, software/firmware, inventory and network management*
  - *Standards management, DSRC interface with private networks*
- *Resources*
  - *Staffing has to grow and become/stay highly trained*
  - *Proactive network management and disaster recovery*
  - *Capital resource requirements are intense*
  - *Must be open-sourced, very flexible, outward facing*





Speakers

Doug Kettles– SR. Research Analyst, EVTC

Dale Hill – Founder, Proterra Electric Bus

Frank Jackalone – Director, Florida Sierra Club

Amitai Bin-Nun – VP, Autonomous Vehicles & Mobility Innovation
Securing America's Future Energy (SAFE)

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