

DOD Plug-In Electric Vehicle Program



DOD V2G Project Update

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V2G Pilot Objectives

1. Demonstrate and validate V2G technology
 - PEVs
 - Bi-directional charging stations
 - Communication software system
 - Aggregator software controls
 - Electrical utility ancillary services markets

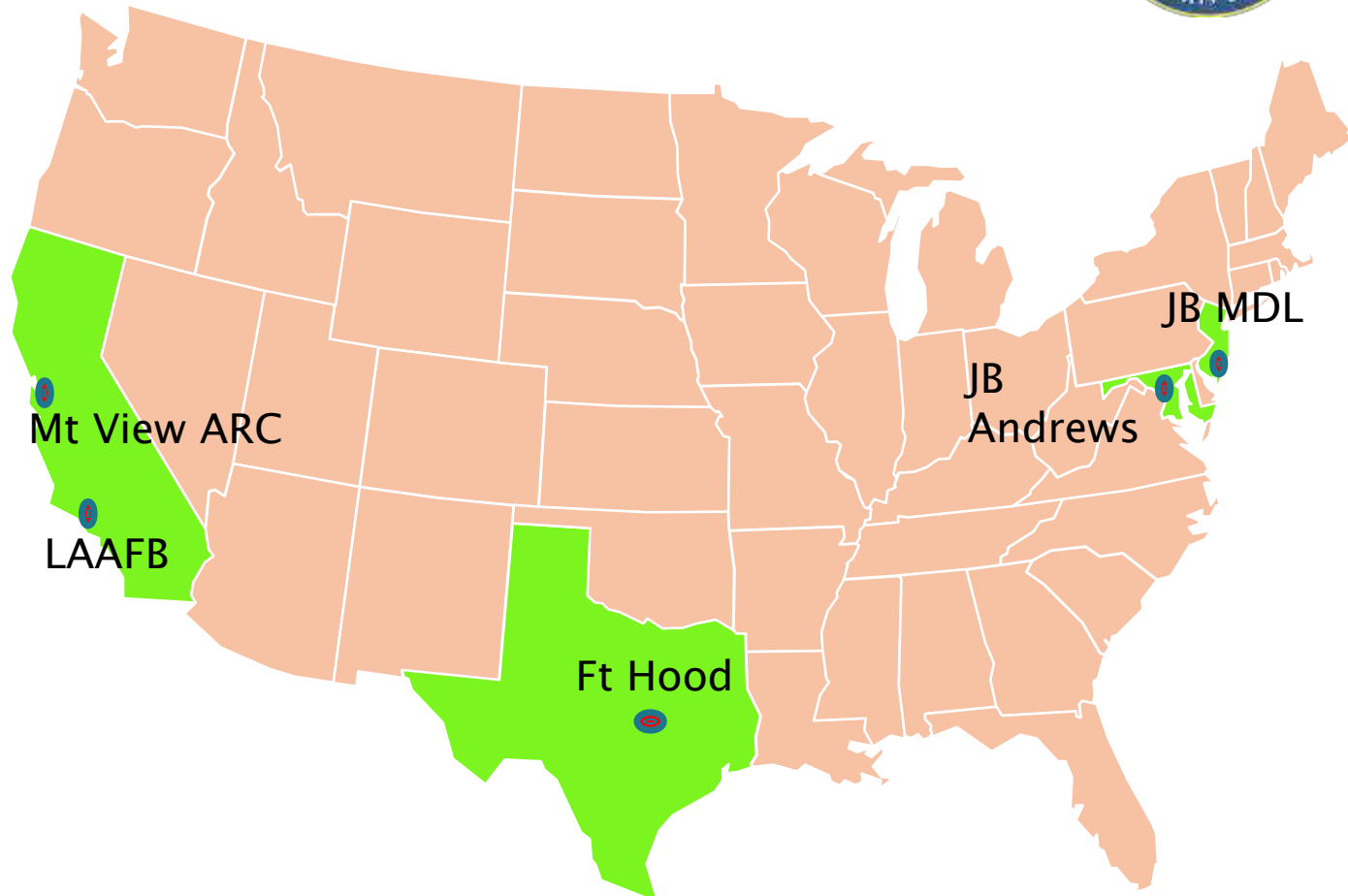
2. Determine feasibility of a broad-scale V2G implementation throughout the DoD
 - Does the technology work?
 - Does operation interfere with mission activities?
 - Can PEVs achieve cost parity or better with conventional vehicles?

V2G Pilot Locations



Selection Benefits:

- Different Services (USAF, Army, and Joint Base installations)
- Different electrical grid territories
- Different base sizes
- Different climates
- Different vehicle requirements



V2G Vehicle Types



Note:

- *Most images captured during site visits to vendors*



*EVAOS –
Uses Ford F150,
F250 and F350*



*EVI Stake Bed
(also Box Truck)
– LAAFB*



*VIA Vans – Use
Chevrolet Express
van chassis*

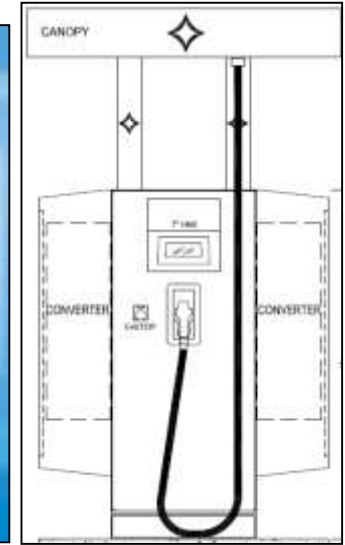


2012 Nissan LEAF



*Phoenix Shuttle
Bus – LAAFB*

V2G Charging Station Types



Princeton Power System (PPS)
DC charging station – All but MDL
(Nissan LEAF using CHAdeMO)

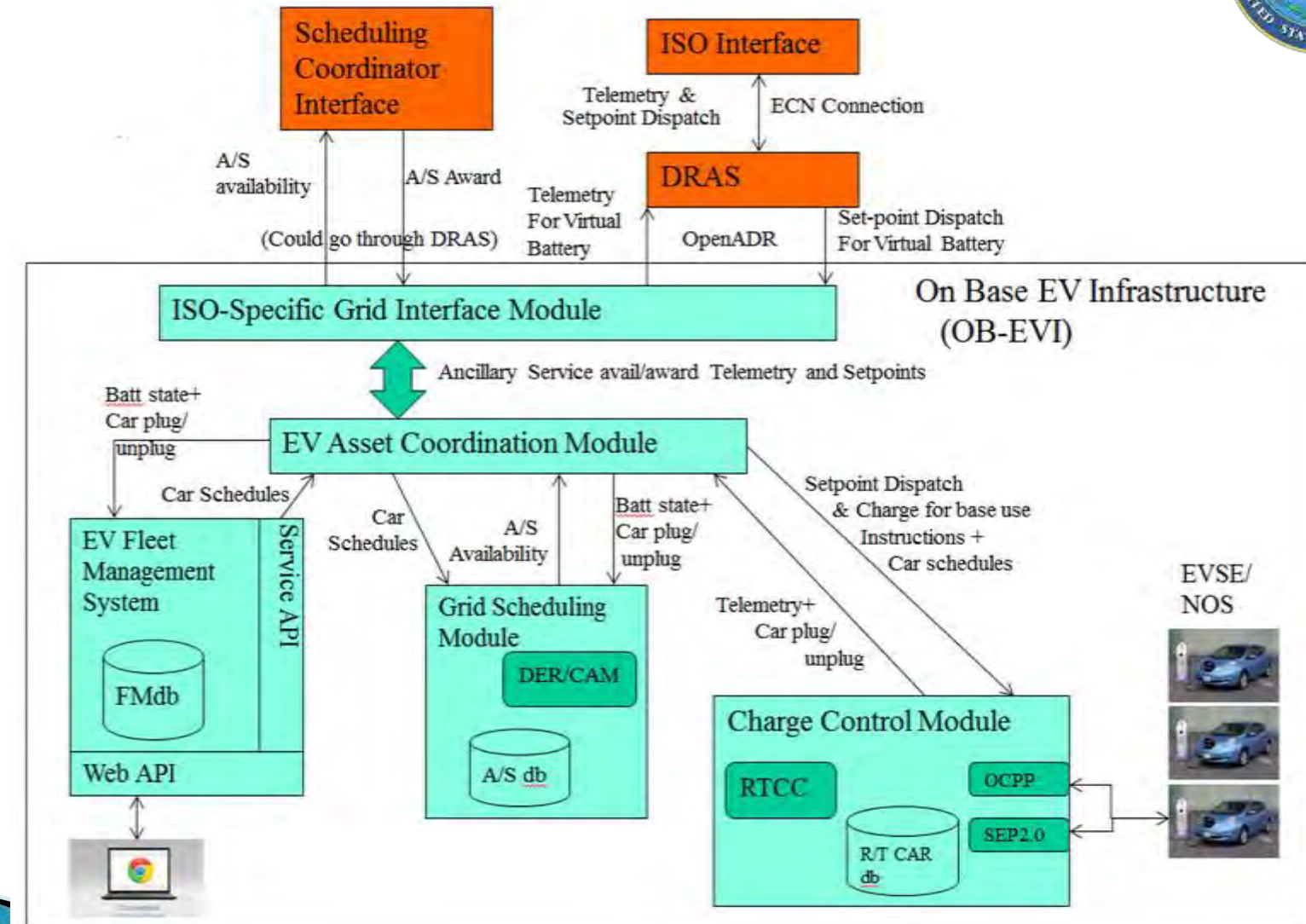
AeroVironment
AC charging station – Fort MacArthur
(supports non-V2G vehicles)

Eaton
AC charging station – LAAFB
(supports non-V2G vehicles)

Coritech Services
AC (V2G using SAE)
– All Bases

DC (V2G using SAE Combo)
– All Bases

V2G Software Architecture





Questions?