DejaNetworks Using smartphones to connect and control EV chargers and critical infrastructure



Scale changes EVERYTHING

US EVs (BEV & PHEV) Sales & Sales Share Forecast: 2021-2030



It took 12 years to sell the first 2.5 million EVs (2010 – 2022)

In the next 7 years over <u>25 million</u> EVs will be sold*

*EEI EV Infrastructure Report June 2022

Historical Sales Data: GoodCarBadCar.net, InsideEVs, IHS Markit / Auto Manufacturers Alliance, Advanced Technology Sales Dashboard I Research & Chart: Loren McDonald/EVAdoption

Cellular + Wi-Fi networks are complicated, unreliable, and vulnerable



Requires skilled labor

	#	%
Connector Broken	6	0.9%
Blank or non-responsive screen	23	3.5%
Error message on screen	24	3.7%
Connection error	7	1.1%
Payment system failure	47	7.2%
Charge initiation failure	42	6.4%
Total	149	22.7%
"Reliability of Open Public Electric Vehicle DCFC" UC Berkeley Dec 2022		

Network disruptions hurt reliability



Multiple cybersecurity attack points

DEJA Smartphone Networkingtm



We use drivers' smartphones to connect EV chargers and critical infrastructure instead of cellular and Wi-Fi networks*

- **Lower Cost**: Electric power-only installation saves time and money
- **Better Reliability**: No network connections
- Enhanced Security: Short range BLE (<10m) makes hacking difficult
- **LEGIC** end-to-end secure encryption

*U.S. Patents 8,996,876; 9,646,435; 10,163,283; 10,812,979

Smartphone Networking: Simple, Reliable, and Secure

- The server creates the charging session parameters
- The access credential and parameters are sent to the phone via cellular
- Upon arrival, the phone pairs automatically with the charger and pushes the parameters to the charger via BLE
- The driver connects the EV to start the session
- Upon departure, the phone pairs with the charger and retrieves the session data via BLE
- When in coverage, the phone transmits the session data to the server via cellular



Multiple integration opportunities



Lodging Systems



Multihousing Solutions



EV charging systems featuring DEJA Smartphone Networkingtm integrate seamlessly with LEGIC and dormakaba access control products serving multiple market verticals





Vacation & Shortterm Rental Solutions



Electronic Access & Data

Confidential Proprietary Information. For internal use only

Securing remote critical infrastructure

CAV Roadside Electronics

Connected and Autonomous vehicles will grow by 18% in 2023, with 900 million CAVs on the road by 2030





Cell/Telecom Electronics

The world's top 100 cell tower companies control 1.5 million buildings and towers with shared telecom infrastructure

Signaling Electronics

The global traffic signal controller market size will grow from \$5.15 billion in 2023 to \$13.83 billion by 2030



Harnessing the world-wide adoption of smartphones





83.72% of people have smartphones today

DEJA Smartphone Networkingtm facilitates EV charging and critical infrastructure growth anywhere there is electricity



6.64Billion

smartphone users in the world today





DEJV

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Smartphone Networkingtm – Simple, Reliable, Secure

Questions?

Confidential Proprietary Information. For Internal Use Only.

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