Accelerating EV Adoption Leveraging the Economy of Scale

29 May, 2017

Confidential

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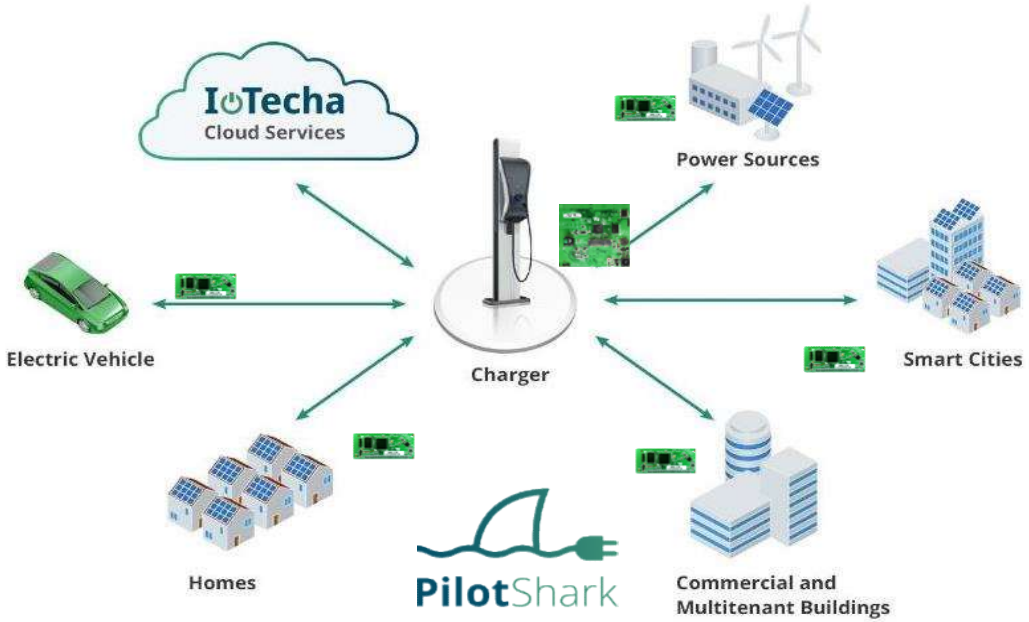
IoTecha Overview

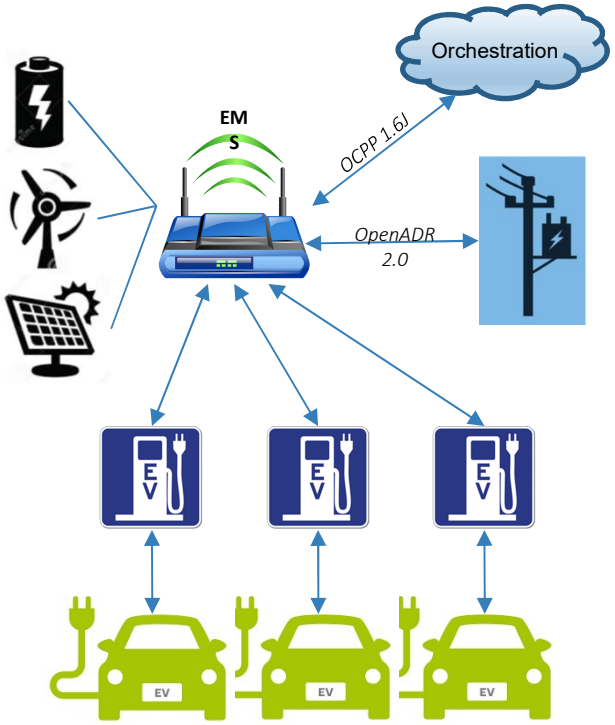
IoTecha is accelerating the Electric Vehicle revolution by providing critical hardware and software components for the Smart Charging infrastructure and enabling the integration of tens of millions of Electric Vehicles with the Power Grid.



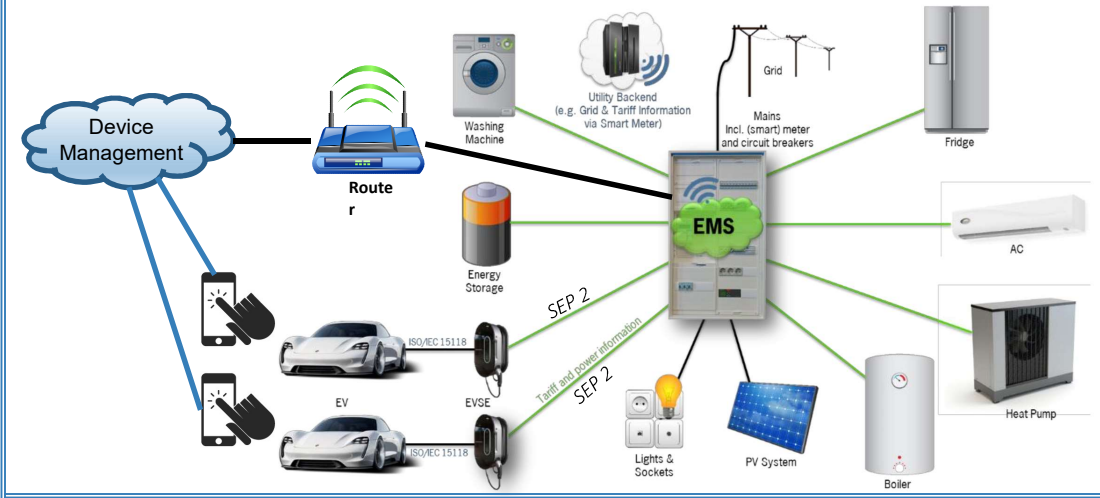
- IoTecha's core team co-invented HomePlug Powerline Communication (IEEE 1901) – used by ISO/IEC 15118 and SEP2.0
- IoTecha team designed the customizable STMicroelectronics' ST2100 chip that implements IEEE 1901
- IoTecha's products include:
  - Combined Charging System on Module (CCSoM)
  - HomePlug GP and ISO/IEC 15118 Protocol Analyzer (PilotShark)
  - IoTecha Intelligent Power Platform (I2P2) for charger management and grid integration

Use Cases (examples)

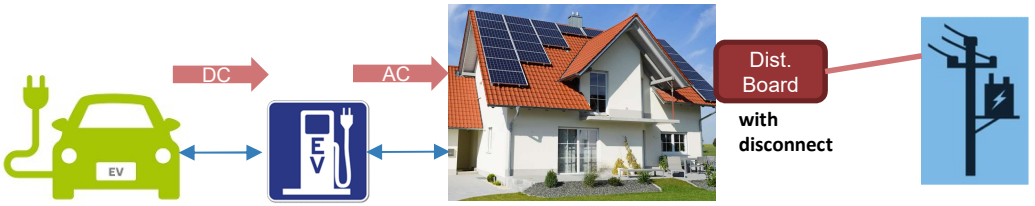
Fleet Charging Orchestration (V1G and V2G)



Home Smart Charging and Energy Management



DC Discharge – V2H/V2G and Emergency Backup



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Accelerating the adoption leveraging the economy of scale

Key enablers:

- Multi-vendor support
- Multi-vendor interoperability
- Affordable solution cost

The interoperability and an open ecosystem - ISO/IEC 15118

- Three years of worldwide multi-vendor testing (2014 – 2017)
- The 6th International CCS & ISO/IEC 15118 Testing Symposium hosted by the CharIN member VEDECOM brought together more than 200 participants from 85 companies

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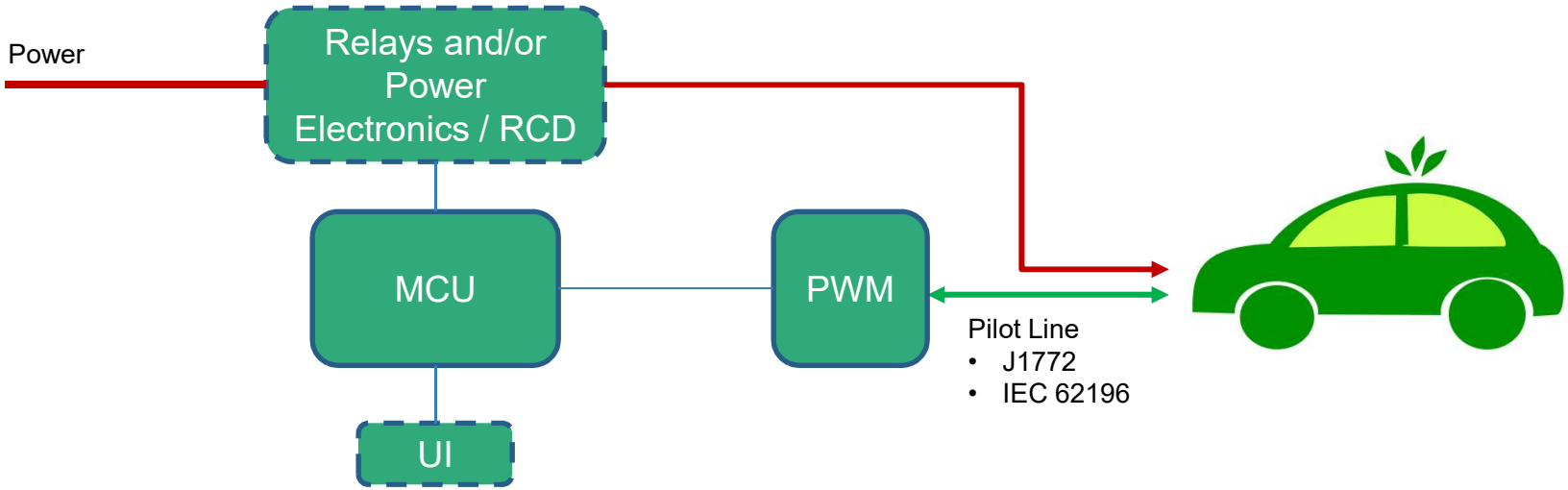
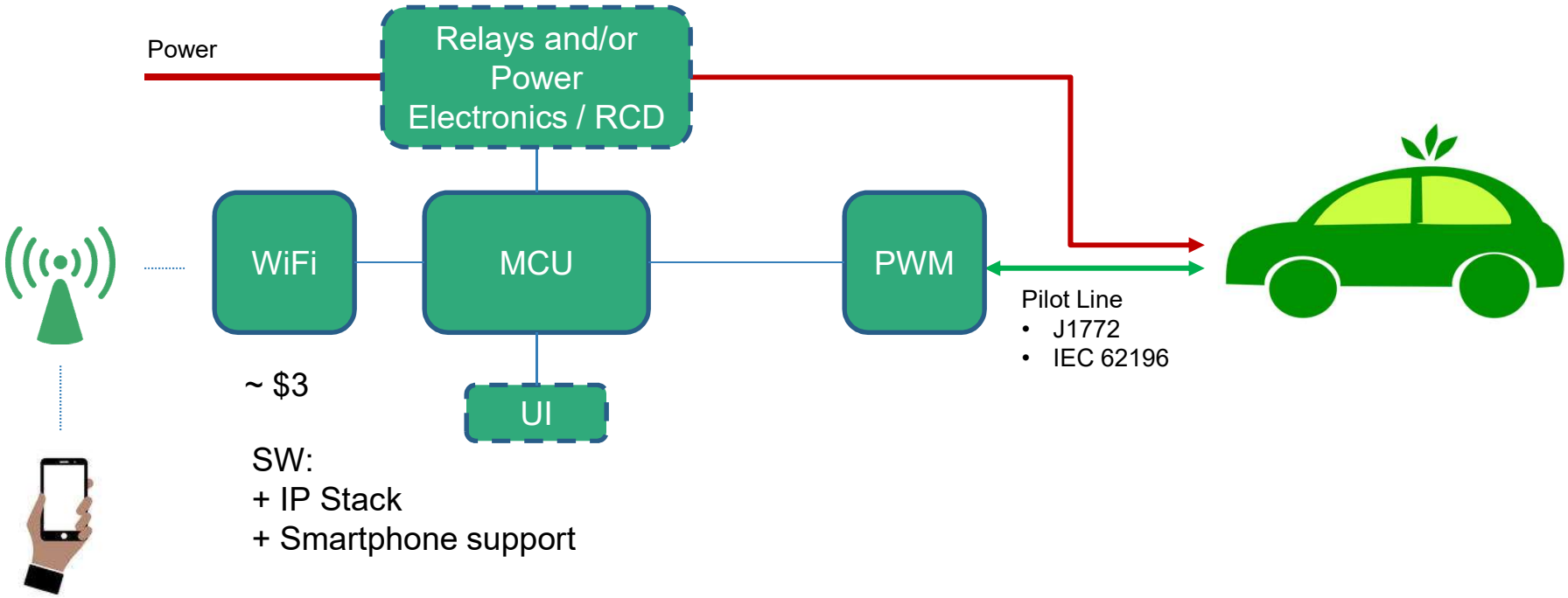
Examining the cost: A "Simple Charger"



Examining the cost: Adding a Smartphone Control



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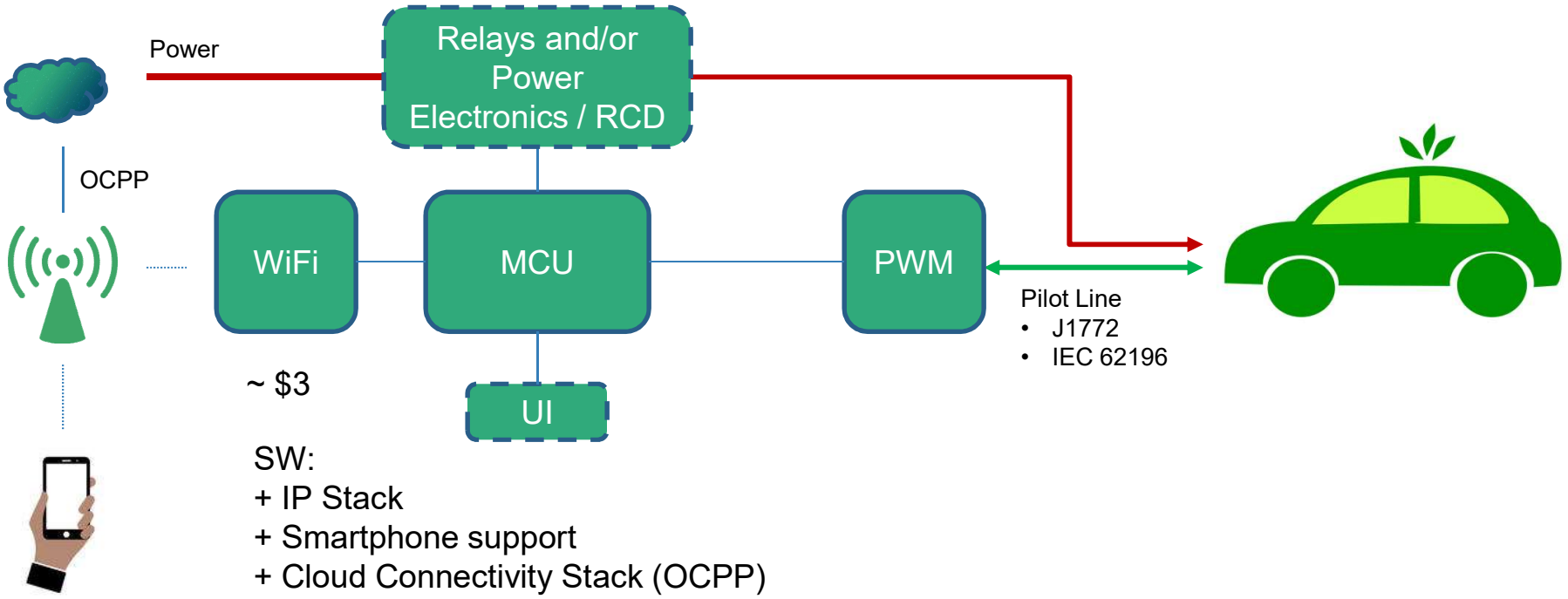
Examining the cost: Adding Cloud Connectivity (LAN)



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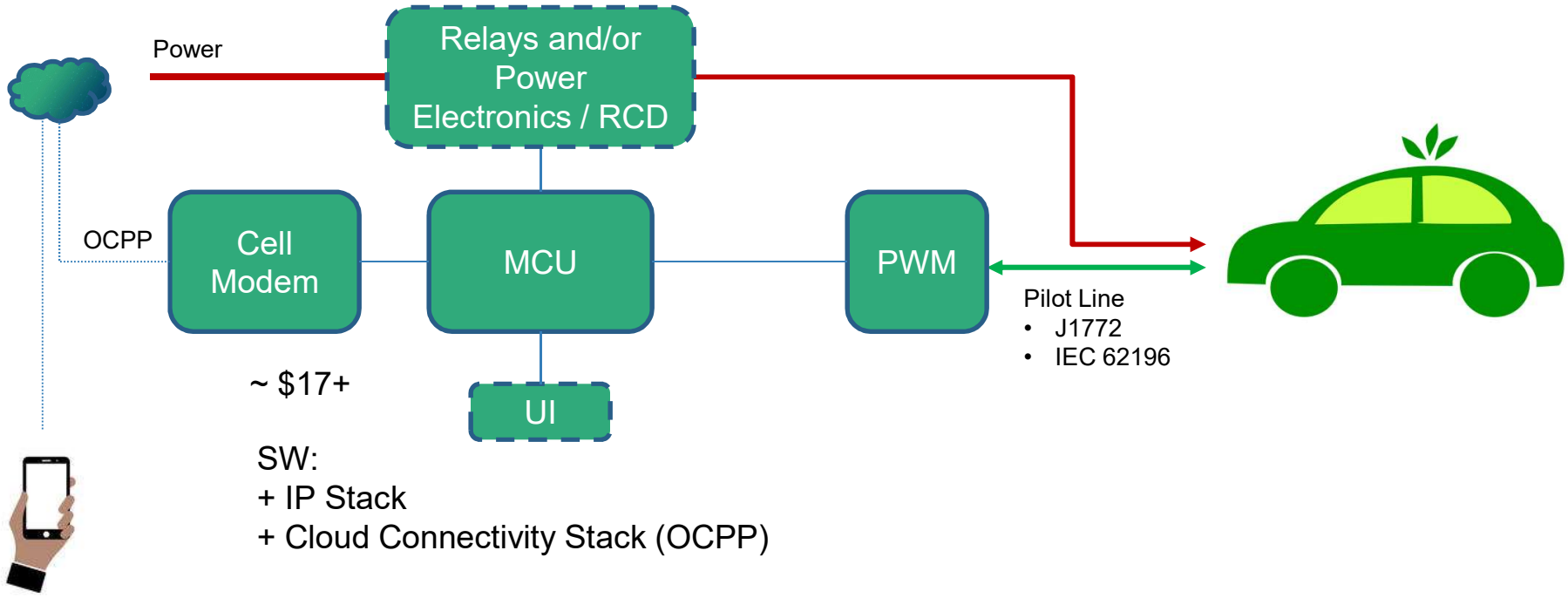
Examining the cost: Adding Cloud Connectivity (Mobile)



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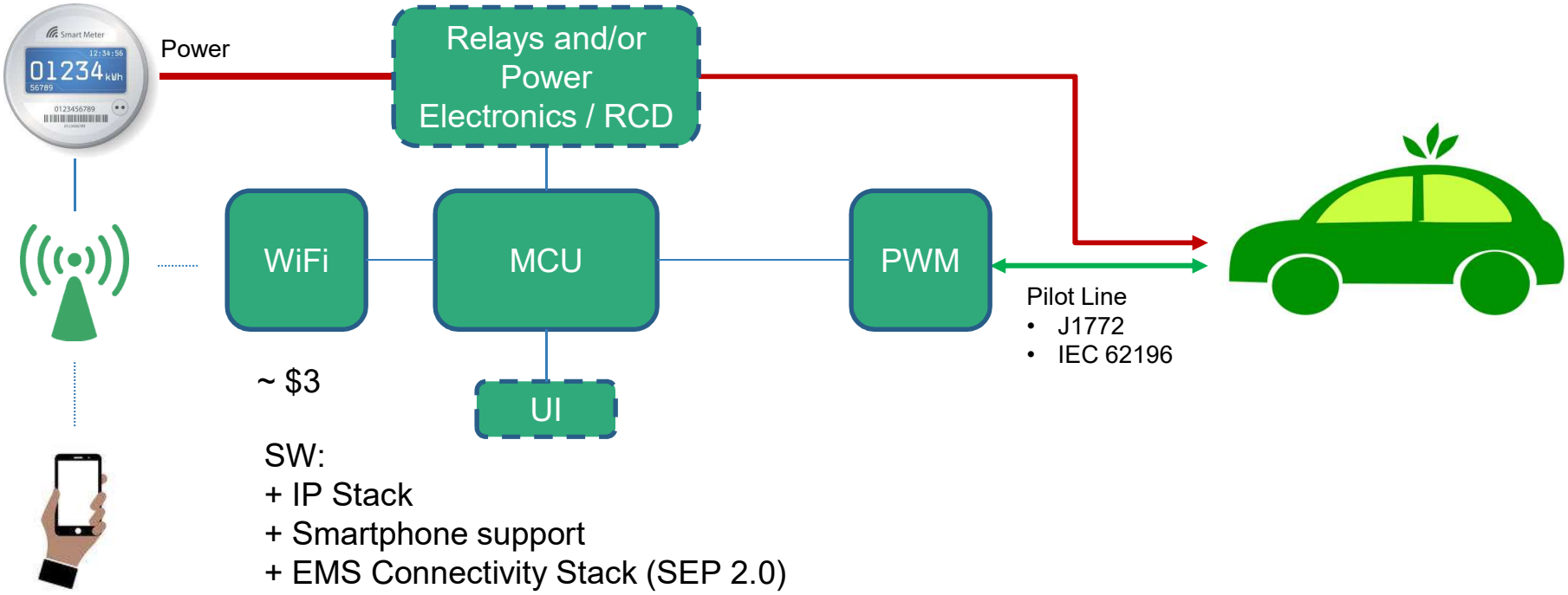
Examining the cost: Adding EMS Connectivity



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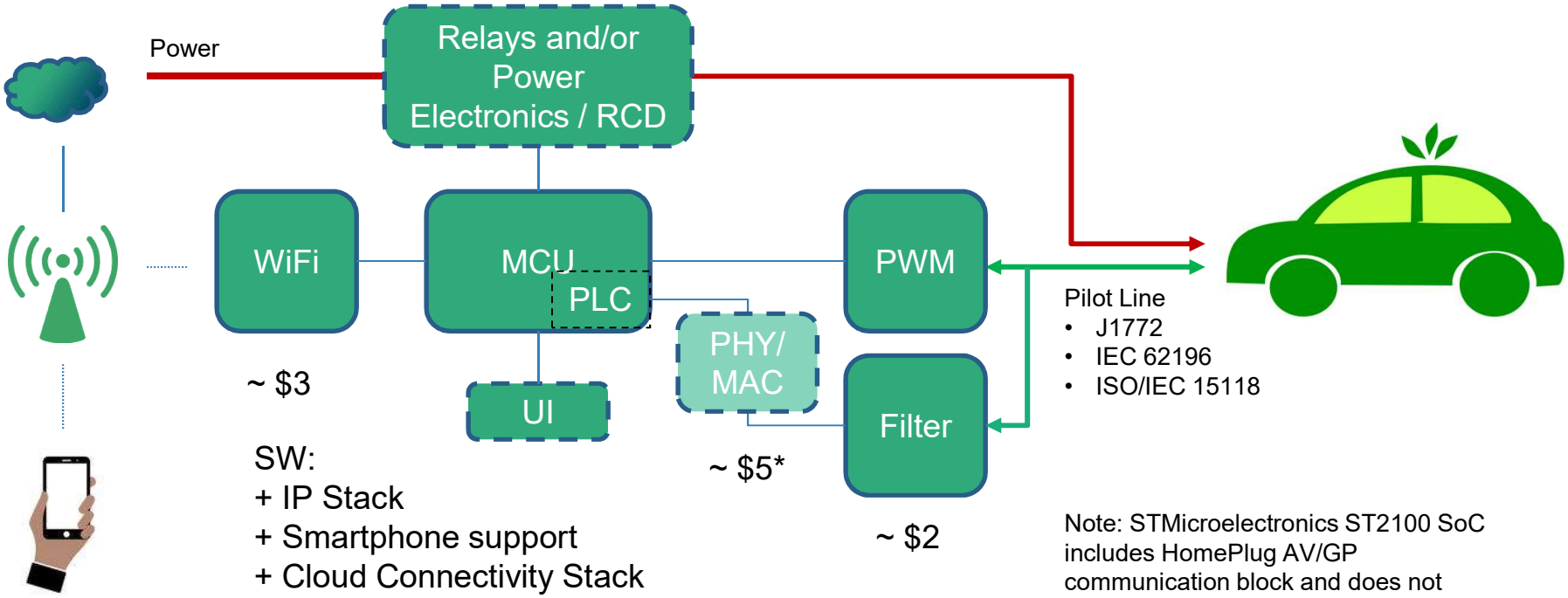
Examining the cost: Adding EV – EVSE Connectivity

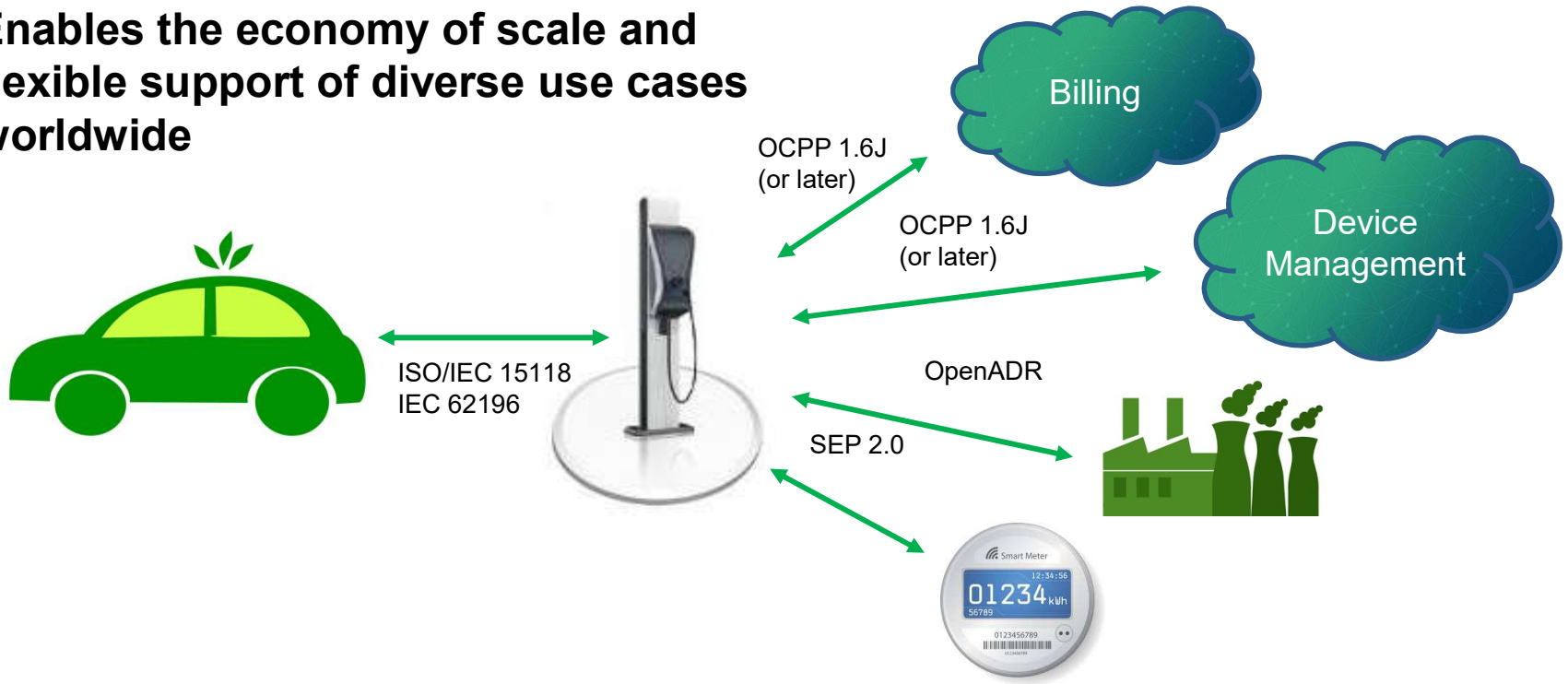


Software Costs

	OS with IP Stack	OCPP Stack	ISO/IEC 15118 Stack	SEP 2.0 Stack
Licensable	✓	✓	✓	✓
Open Source	✓	✓*	✓	

The Solution

Enables the economy of scale and flexible support of diverse use cases worldwide



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Thank You!

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