## VGI Working Group

11/14/2017

#### November 14, 2017 AGENDA

Location: CPUC Auditorium

505 Van Ness Ave. San Francisco, CA 94102

Webex link: https://van.webex.com/van/j.php?MTID=m6973e0cad87ce31982eb4036b2425b02

Webex password: !Energy1 Call in: 866-811-6884

Meeting ID for WebEx and phone: 8742156

| Start Time | Topic  | Presenter                   |
|------------|--|-----------------------------|
| 10:00 am   | Roll Call & Summary of Previous Meeting                              | Justin Regnier, Facilitator |
| 10:10 am   | Appreciation of stakeholders   | Justin Regnier, Facilitator |
| 10:15 am   | State agencies discussion of comments on<br>hardware proposals       | Agencies                    |
| 10:30 am   | Summary of comments received on<br>proposed North Bound requirements | Agencies                    |
| 10:40      | Discussion on proposed North Bound requirements                      | All Stakeholders            |
| 11:20 am   | Summary of comments on proposed internal<br>hardware specifications  | Agencies                    |
| 11:30 am   | Discussion on proposed internal hardware<br>specifications           | All Stakeholders            |
| 12: 00 pm  | Lunch  |                             |
| 1:00 pm    | Discussion on proposed internal hardware specifications (cont.)      | All Stakeholders            |
| 1:30 pm    | Summary of comments received on<br>proposed South Bound requirements | Agencies                    |
| 1:40 pm    | Discussion on proposed South Bound requirements                      | All Stakeholders            |
| 2:20 pm    | Other proposal comments and discussion                               | All Stakeholders            |
| 3:15 pm    | Deliverable 2 discussion   | All                         |
| 3:45 pm    | Action items and next steps  | Justin Regnier, Facilitator |
| 3:50 pm    | Wrap Up  | Agencies                    |
| 4:00 pm    | Adjourn  |                             |

#### Agency Thoughts on Proposal Comments

CPUC

CEC

**CARB** 

### Summary of Comments

| Hardware function                            | Functionality Description  | Commenters' Suggested Requirements   |
|--|--|--|
| Installation Segments                        | Commercial, MUD, Single-family residences  | All segments   |
| Power level/Current type (AC v. DC)          | AC L1 and L2; DC L1, L2 or L3  | AC L2, DC L1 and L3  |
| EVSE   | IEEE 802.11n compliant hardware, IEEE 802.3 compliant hardware. Wifi and Ethernet connection   | OpenADR, Wi-Fi, Ethernet, Cell,<br>Telematics, SEP 2.0   |
| EVSE Charging Network Provider or Aggregator | Field upgradable, sufficient processor power to perform real-time protocol translation and encryption/description, supporting IP stack, interface and form factor that provides hardware extensibility | HP-GP, Wi-Fi, OCPP, IPv6, IEEE 802.11n, IEEE 802.3   |
| EVSE ←→ Car                                  | physical layers that support the currently viable protocols  | 15118, HP-GP, Plug-n-charge, Control pilot signal connected in IEC 61851-1   |
| Metering                                     |  | revenue grade meters   |
| Cybersecurity                                |  | ISO/IEC 11889, secure processor and memory, tamper detection, penetration proofing, other requirements, NISTIR 7628, UL 2900 |

#### Northbound

Commenters suggested these currently viable Northbound protocols that could be applied if hardware meets functionality requirements:

- OpenADR
- •Wi-Fi
- Ethernet
- •Cell
- Telematics
- SEP 2.0

#### Westbound

Commenters suggested these currently viable Westbound protocols that could be applied if hardware meets functionality requirements HP-GP

- Wi-Fi
- OCPP
- IPv6
- IEEE 802.11n
- IEEE 802.3

#### Southbound

Commenters suggested these currently viable Northbound protocols that could be applied if hardware meets functionality requirements:

- 15118
- HP-GP
- Plug-n-charge
- Control pilot signal connected in IEC 61851-1

# Installation Segments, Metering, Cybersecurity

- Commenters suggested we consider all installation segments, rather than only multi-user facilities
- Commenters suggested we consider other power levels beyond AC L2
- Commenters recommended we require revenue-grade meters
- Commenters recommended we require hardware that could enable one or more of these currently viable solutions to address cybersecurity issues:
  - ISO/IEC 11889
  - Secure processor and memory
  - Tamper detection
  - Penetration proofing
  - NISTIR 7628
  - UL 2900

## Other Proposal Comments and Discussion

#### Deliverable 2 Discussion

### Action Items – Next Steps

### Adjourn

Thank you!