

MDS & ONE YEAR PERMITTING OVERVIEW

FEBRUARY 7, 2019

UPDATED: MARCH 6, 2019



Webinar Agenda

- 2:00 PM** **Introductions and Agenda Overview - Marcel Porras**
- 2:05 PM** **Overview of the One Year Permitting Process - Jose Elias**
- 2:15 PM** **Requirements for MDS Provider Compliance During One Year Permit
- Hunter Owens**
- 2:20 PM** **Introducing MDS Agency API for the One Year Permit - Todd
Petersen**
- 2:35 PM** **The MDS Sandbox Environment - Sean Holman**
- 3:10 PM** **How We're Defining MDS Agency Compliance - John Ellis**
- 3:50 PM** **Wrap Up/Next Steps - Marcel Porras**
- 4:00 PM** **End**

Overview of the One-Year Permitting Process

Overview: When does the pilot start?

- **January 28:** application opened
- **February 15:** application closes
 - takes 15-20 business days to process
- **March 4:** begin issuing permits



MARCH 2019
CALENDAR

MON	TUE	WED	THU	FRI	SAT	SUN
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Photo: iStock.com

Insurance Requirements

- CGL: \$5 million
- Umbrella: \$5 million
- Workers' Comp: \$1 million
- Auto: \$1 million

*GL: \$5M per occurrence. [Can be satisfied w/a min \$1M CGL w/a policy specific CGL Excess policy of \$4M.]

Name: _____ Date: 12/21/2018

Agreement/Reference: Dockless On-Demand Personal Mobility One-Year Permit Evidence of coverages checked below, with the specified minimum limits, must be submitted and approved prior to occupancy/start of operations. Amounts shown are Combined Single Limits ("CSLs"). For Automobile Liability, split limits may be substituted for a CSL if the total per occurrence equals or exceeds the CSL amount.

	Limits
<input checked="" type="checkbox"/> Workers' Compensation - Workers' Compensation (WC) and Employer's Liability (EL)	
<input type="checkbox"/> Waiver of Subrogation in favor of City	
<input type="checkbox"/> Longshore & Harbor Workers Jones Act	WC <u>Statutory</u> EL <u>\$1,000,000</u>
<input checked="" type="checkbox"/> General Liability <u>City of Los Angeles must be named as additional insured</u>	<u>\$5,000,000</u>
<input type="checkbox"/> Products/Completed Operations	<input type="checkbox"/> Sexual Misconduct _____
<input type="checkbox"/> Fire Legal Liability _____	
<input type="checkbox"/> _____	
<input checked="" type="checkbox"/> Automobile Liability (for any and all vehicles used for this contract, other than commuting to/from work)	<u>\$1,000,000</u>
<input type="checkbox"/> Professional Liability (Errors and Omissions)	
Discovery Period <u>12 Months After Completion of Work or Date of Termination</u>	
<input type="checkbox"/> Property Insurance (to cover replacement cost of building - as determined by insurance company)	
<input type="checkbox"/> All Risk Coverage	<input type="checkbox"/> Boiler and Machinery
<input type="checkbox"/> Flood _____	<input type="checkbox"/> Builder's Risk
<input type="checkbox"/> Earthquake _____	<input type="checkbox"/> _____
<input type="checkbox"/> Pollution Liability	
<input type="checkbox"/> _____	
<input checked="" type="checkbox"/> Surety Bonds - Performance and Payment (Labor and Materials) Bonds	100% of the contract price
<input type="checkbox"/> Crime Insurance	
<input type="checkbox"/> _____	
Other: <u>For Automobile Liability: \$1Million Combined Single Limit per accident for bodily injury and property damage</u>	
<u>Umbrella Liability: \$5Million per occurrence</u>	
<u>Performance Bond of \$80 per vehicle</u>	
<u>*GL: \$5M per occurrence. [Can be satisfied w/a min \$1M CGL w/a policy specific CGL Excess policy of \$4M.]</u>	

46 DOCKLESS ON-DEMAND PERSONAL MOBILITY PERMIT

Bond Requirements

- Performance bond of \$80/vehicle
- Include LLC: dba
- Must be notarized
- Submit bond to cao.insurance.bonds@lacity.org

Bond # _____

Contractor's Performance Bond

KNOW ALL MEN BY THESE PRESENTS:

That I/we _____ LLC: dba _____ as PRINCIPAL(S), and (insert surety bond company here) _____ a corporation organized under the laws of the State of _____ and duly authorized to transact business under the laws of the State of California, as SURETY, are held and firmly bound unto the city of Los Angeles, a municipal corporation, as OBLIGEE, in the just and full sum of Two Hundred Forty Thousand & 00/100 -- Dollars, (\$240,000.000), lawful money of the United States of America, for the payment whereof well and truly to be made said PRINCIPAL and SURETY bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally firmly by these presents.

THE CONDITION of the forgoing obligation is such that, whereas the above bounden PRINCIPAL is about to enter into a contract, attached hereto, with said OBLIGEE to do and perform the following, to-wit: Dockless On-Demand Personal Mobility One-Year Permit

as will more fully appear from said contract, reference to which is hereby made, and which said contract and all documents incorporated therein by reference are expressly made a part hereof.

The said SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed hereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract of the work.

NOW, THEREFORE, if the above bounden PRINCIPAL shall well and truly perform the work contracted to be done under said contract, and shall fully and faithfully carry out and perform all of the terms, covenants and conditions of said contract upon its or his part to be performed, then this obligation to be null and void, otherwise to remain in full force and effect.

No right of action shall accrue under this bond to or for the use any person other than the OBLIGEE named herein.

Signed and sealed the _____ day of _____, A.D. 20 _____

_____ (Principal)

_____ (Principal)

_____ (Principal)

_____ (Principal)

By _____ (Attorney-in-Fact)

_____ (Surety)

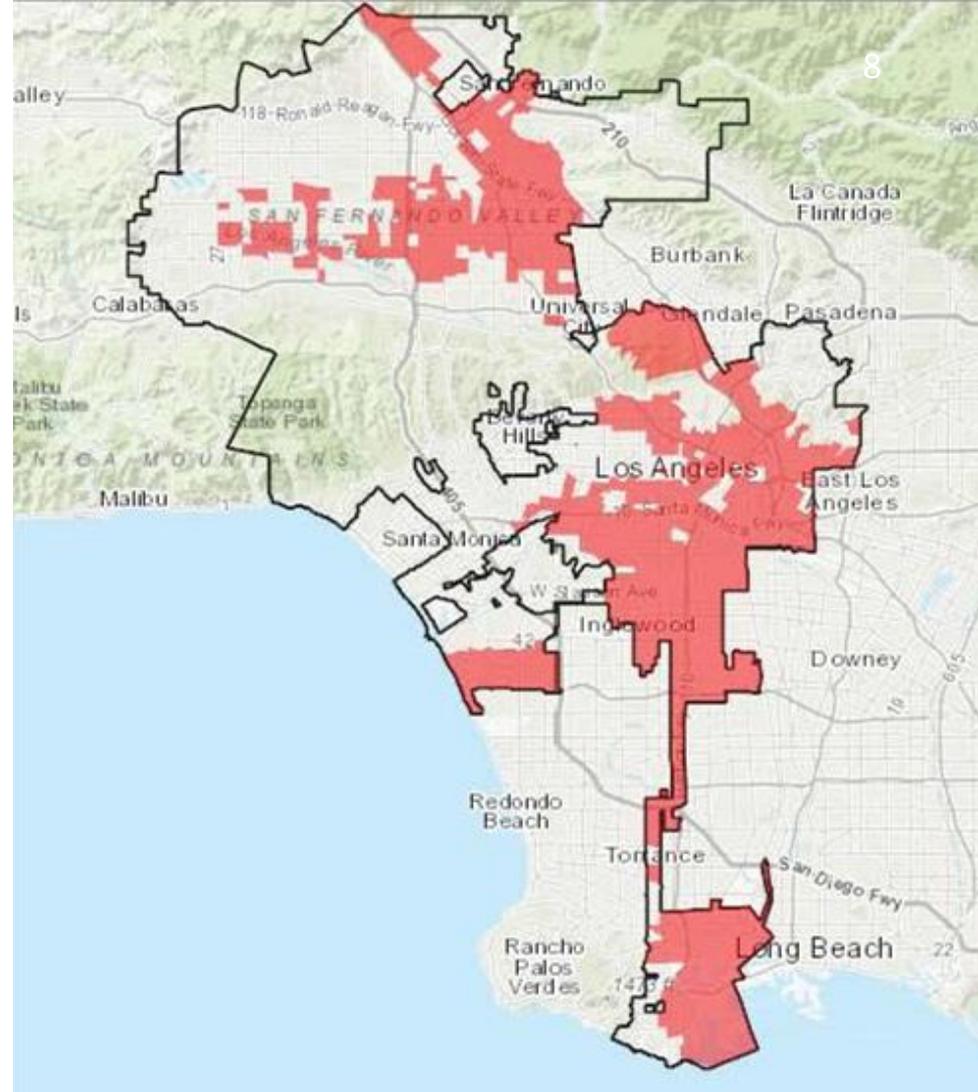


Sidewalk Riding Prevention

- **“No Riding on Sidewalks”** required in 48 point font on platform
- User education on app

Overview: Fleet Size

- 3,000 vehicles max
- + 2,500 in disadvantaged communities
- + 5,000 in the San Fernando Valley



Overview: Equity

- Public engagement plan
- Cash option
- Non-smartphone option
- Low-income plan



Lessons Learned

- Submit insurance to KwikComply ASAP
- Use **Contractor's Performance Bond** form
 - Bond must be signed and notarized by **principal** of the company
 - Please see the Execution Instructions for signature on bonds (pg. 43)

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Signed and sealed the _____ day of _____ A.D. 20 _____

_____ (Principal)

_____ (Principal)

_____ (Principal)

_____ (Principal)

By _____ (Attorney-in-Fact)

_____ (Surety)

Q&A

Requirements for MDS Provider Compliance During One-Year Permit

One-Year Permit Requirements: MDS Provider Compliance

- **Company applies for one-year permit**
- **If company is already operating**
 - a. Check that ETL works
 - b. Issue new third-party client credential
 - c. Assuming all other requirements met, permit is issued
- **If company is not already operating**
 - a. Run MDS-Validator on Staging Data
 - b. Confirm staging data is valid
 - c. Go to step 2

FYIs

For responding to myLA311 requests, user accounts to come during the permit period for your operations staff.

We will be requiring MDS 0.3.0 on provider 90 days after release of 0.3.0.

MDS 0.3.0 Updates

- **Info at:** <https://github.com/CityOfLosAngeles/mobility-data-specification/milestone/3>
- **RC set to hit next week**
- **Features:**
 - a. Query Time Fix
 - b. Timestamp change!
 - c. Allow rounding to nearest accuracy unit for GPS
 - d. How to support multiple provider versions
 - e. Agency refactor
 - f. GBFS auto discovery URL
 - g. /service-areas now expresses geofences
 - h. associated_trips -> associated_trip
 - i. Much more!

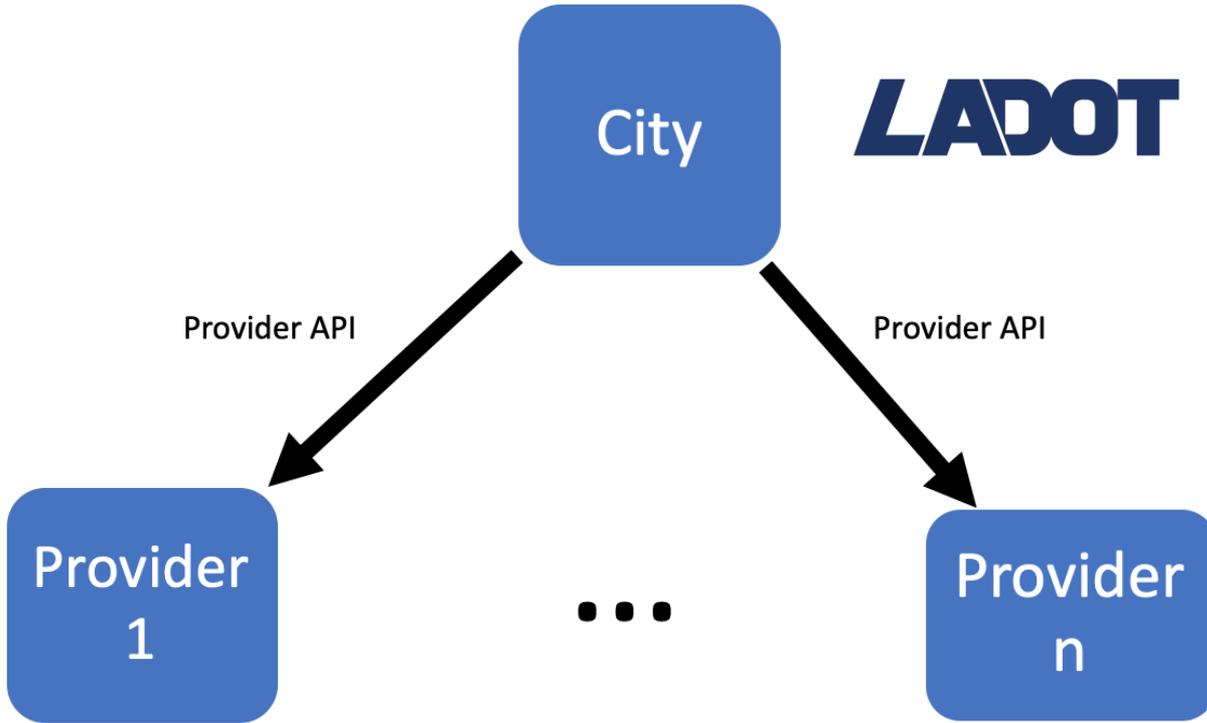
Q&A

Summary - Top Three Takeaways

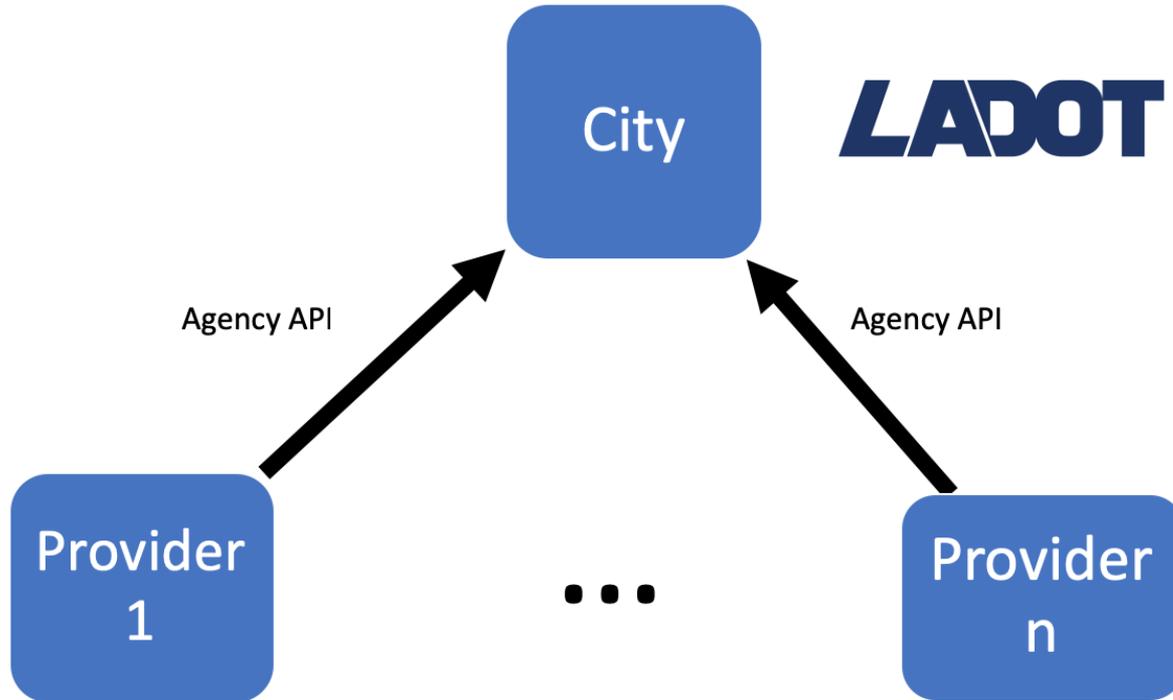
1. Submit your permit application early!
2. Contact Jose with questions on the one-year application at jose.elias@lacity.org
3. Email ladot.innovation@lacity.org for MDS onboarding/compliance questions

Introducing MDS Agency API for the One-Year Permit

Provider Access



City as a Platform



Fleet Management Workflow

Vehicle Assembly

- Receive and assemble vehicle from manufacturer
- Upload new firmware
- Registration of vehicles in your system

LADOT

Register Vehicle With Agency

Vehicle Registration

Endpoint: `/vehicles`

Method: `POST`

Body Params:

```
Device_id  
Vehicle_id  
Propulsion  
Type  
Year  
...
```

Vehicle Deployment

- Vehicle Deployment to Right of Way
- Available on the app

Deployment Workflow

Vehicle Deployment

LADOT

Deploy Vehicle
With Agency

Rental Operations

- Vehicle Deployment to Right of Way

Vehicle Event

Endpoint:

```
/vehicles/{device_id}/event
```

Method: POST

Body Params:

```
Event_type = 'service_start'
```

```
|| rebalance_drop_off
```

```
|| maintenance_drop_off
```

- Start Service

Start Trip Workflow

Request Rental

- User requests rental start
- User scans barcode
- Start of reservation

LADOT

Start Trip
with Agency

Vehicle Event

Endpoint:

`/vehicles/{device_id}/event`

Method: `POST`

Body Params:

`Event_type = 'trip_start'`

Start Ride

- Unlock Vehicle
- Secure Payment
- Notify App

Update Telemetry Workflow

Start Ride || t>=30m || t>=30 sec

LADOT

Update
Agency

End Ride

- During ride

Telemetry

Endpoint:

`/vehicles/telemetry`

Method: POST

Body Params:

```
device_id  
timestamp  
GPS  
charge
```

- Vehicle
- Settle Payment
- Notify App

Update Telemetry Workflow

End Ride OR $t \geq 30m$ OR $t \leq 24$ hrs



Update
Agency

End Ride OR $t < 24$ hrs after
End Ride

- During ride or after termination of ride

Telemetry

Endpoint:

`/vehicles/telemetry`

Method: `POST`

Body Params:

```
device_id  
timestamp  
GPS  
charge
```

- Prior to ride completion OR expiration of 24 hour period after ride.

End Trip Workflow

Start Ride || Update Telemetry

LADOT

End Trip
With Agency

End Ride

- User requests rental start
- User scans barcode
- Start of reservation
- Update Telemetry

Vehicle Event

Endpoint:

`/vehicles/{device_id}/event`

Method: `POST`

Body Params:

`Event_type = 'trip_end'`

- Unlock Vehicle
- Secure Payment
- Notify App

Retrieval Workflow

Rental Operations

LADOT

Retrieve Vehicle
With Agency

Removal

- Vehicle Deployment to Right of Way

Vehicle Event

Endpoint:

`/vehicles/{device_id}/event`

Method: `POST`

Body Params:

`Event_type = 'service_end'`

- Retrieval from street

The MDS Agency Sandbox Environment

The MDS Sandbox Environment

- **Signup is live. Send email to support@ladot.io for an account.**
- **Sandbox URL: <https://sandbox.ladot.io/agency/dev>**
- **Admin page: <https://mds.ladot.io>**
- **MDS CLI: <https://github.com/CityOfLosAngeles/mds-agency-cli>**

MDS Agency Sandbox Walkthrough

- Retrieve the LA service areas
- Register a vehicle (using OAuth credentials)
- Start the first trip
- Send telemetry
- End trip
- Other events (pickup/dropoff, low battery, maintenance, etc)

Q&A

How We're Defining MDS Agency Compliance

MDS Agency Goals

Initial Compliance Goals

1. **Verify that dockless mobility providers have correctly implemented support for MDS Agency (see previous workflows - slides 20-25).**
1. **Make sure that individual devices are accurately reporting data per the MDS Agency spec:**
<https://github.com/CityOfLosAngeles/mobility-data-specification/tree/dev/agency>
1. **All dockless mobility providers compliant by April 15**

Mobility Service Provider's Responsibility

- 1) Integrate with MDS Agency APIs and notify LADOT of a supporting mobile app version prior to award of one-year permit.
- 2) Use Agency APIs for all vehicles in use on streets in the City of Los Angeles.
- 3) Make good faith efforts to submit all accurate data described in MDS Agency.
- 4) Continue compliance with MDS Agency APIs over the duration of the one-year permit, including i) new versions of the mobile application you may release; and ii) new versions of the MDS that LADOT may release.

Testing Integration Compliance: Fleet Management

1. Verify the number of vehicles registered against registry endpoint (/vehicles) is consistent with those that report data within (/service_area).
2. Verify that vehicles appearing as *available* in the mobility providers app match those with that status in MDS Agency.
3. LADOT reserves the right to verify that vehicles are not deployed (*service_start*, *rebalance_drop_off*, *maintenance_drop_off*) in service areas that would exceed their respective vehicle cap as defined in the permit. At this time for Agency, Vehicles are measured as the number of vehicles with the status of *available*, *reserved*, *trip*, or *unavailable* within the vehicle registry.
4. Telemetry data is required with submissions to the vehicle event endpoint (/vehicles/x/event) including *event_types*: *service_start*, *rebalance_drop_off*, and *maintenance_drop_off*.

Testing Integration Compliance: Vehicle Rental

1. LADOT to go and rent a vehicle. LADOT will verify:
 - a. Only vehicles with the status of *available* or *reserved* are eligible for rentals.
 - b. At the time of rental start, the Vehicle event endpoint (/vehicles/x/event) shall be called with the event type of *trip_start* prior to unlocking the vehicle.
2. LADOT to end the ride. Validate that:
 - a. At rental end, Vehicle event endpoint (/vehicles/x/event) shall be called with the event type of *trip_end* within five seconds of rental termination.
3. Telemetry data is required with submissions to the vehicle event endpoint (/vehicles/x/event) including *event_types*;, *trip_start*, *trip_end*, *trip_enter*, and *trip_leave*.

Testing Integration Compliance: Vehicle Trip

1. LADOT to ride the vehicle for approximately 10 mins. Validate that:
 - a. During the rental, Update Telemetry endpoint (/telemetry) shall be called with accurate information every 30 meters while vehicle is in motion and 30 seconds while at rest. For providers who do not calculate distance in real-time, a periodic rate of five seconds can be used while vehicle is in motion.
 - b. Telemetry data is required with submissions to the vehicle event endpoint (/vehicles/x/event) including *event_types: service_start, trip_start, trip_end, trip_enter, trip_leave, rebalance_drop_off, and maintenance_drop_off*.

Testing Integration Compliance: Post Vehicle Trip

1. LADOT to ride the vehicle for approximately 10 mins and post trip, will validate that:
 - a. The Update Telemetry endpoint (/telemetry) shall be called for the specific trip within 24 hrs after the vehicle trip is over.
 - b. For any given trip, data reported via the (/telemetry) endpoint shall contain temporal and location data for every 300 ft (91 meters) while vehicle is in motion and 30 seconds while at rest. For Mobility Service Providers who do not calculate distance in real-time, a periodic rate of 14 seconds can be used while vehicle is in motion.

Discussion

Wrap Up & Next Steps

End