

WHAT IS CLAIMED IS:

1. A computer-implemented method comprising:
 - identifying, by a server computer system, a provider computing device for use in capturing street-level imagery, wherein the provider computing device controls a camera positioned to capture street-level imagery near a vehicle associated with the provider device;
 - determining, by the server computer system, a configuration for the provider computing device, wherein the configuration is configured to control the provider computing device to capture the street-level imagery, wherein the provider computing device is one of a set of provider computing devices that are collectively configured to meet a collection objective, and wherein determining the configuration comprises:
 - receiving capability data from the provider computing device associated with the vehicle and capability data from at least one alternate provider computing device associated with an alternate vehicle;
 - selecting the configuration based on the capability data from the provider computing device and the capability data from the alternate provider computing device; and
 - sending, by the server computer system, the configuration to the provider computing device, wherein the provider computing device captures street-level image data in response to receiving the configuration.
2. The computer-implemented method of claim 1, wherein the configuration controls use of the provider computing device to provide street-level image data based at least in part on sensor data received by the provider computing device.
3. The computer-implemented method of claim 2, wherein: the sensor data indicates a geolocation of the provider computing device; and the configuration specifies at least one geolocation associated with a rule for controlling use of the provider computing device to provide street-level image data.
4. The computer-implemented method of claim 1, wherein determining the configuration that controls use of the provider computing device associated with the vehicle further comprises:
 - identifying the collection objective for street-level image data based on at least one data collection rule;
 - determining that the set of provider computing devices match the data collection rule, wherein the set of provider computing devices are associated with a corresponding set of vehicles; and

determining the configuration for each of the set of provider computing devices such that the set of provider computing devices are collectively configured to meet the collection objective.

5. The computer-implemented method of claim 1, wherein the capability data from the provider computing device describes computing capabilities of the provider computing device and the capability data from the alternate provider computing device describes computing capabilities of the alternate provider computing device.

6. The computer-implemented method of claim 1, wherein the capability data from the provider computing device describes a view available to the camera of the provider computing device and the capability data from the alternate provider computing device describes a view available to a camera of the alternate provider computing device.

7. The computer-implemented method of claim 1, further comprising updating, by the server computer system, the configuration that controls use of the provider computing device associated with the vehicle based at least in part on street-level image data received from a different provider computing device associated with a different vehicle.

8. The computer-implemented method of claim 1: wherein the provider computing device associated with the vehicle comprises a transportation matching application; and further comprising transmitting, by the server computer system, instructions to the transportation matching application based at least in part on street-level image data received from a different provider computing device associated with a different vehicle.

9. The computer-implemented method of claim 1, further comprising: updating the configuration, by the server computer system and based on the street-level image data received by the server computer system, to cause the provider computing device to provide additional street-level image data related to the street-level image data; and receiving, by the server computer system, the additional street-level image data from the provider computing device.

10. The computer-implemented method of claim 1, wherein controlling use of the provider computing device to provide street-level image data comprises at least one of: causing the provider computing device to capture a street-level image with the camera; causing the provider computing device to store a street-level image on a storage device; and causing the provider computing device to transmit the street-level image data via a networking device to the server computer system.

11. The computer-implemented method of claim 1, wherein the configuration includes at least

one condition for the provider computing device to upload, to the server computer system, street-level images captured with the camera.

12. The computer-implemented method of claim 11, wherein the condition comprises at least one of: a specified type of network connection available for uploading the street-level images; a specified network transfer capacity available to the provider computing device; a specified amount of time since a previous upload of street-level images; a specified battery level of the provider computing device; and a specified memory capacity available to the provider computing device.

13. The computer-implemented method of claim 1, wherein the provider computing device provides the street-level image data to the server computer system in response to the provider computing device determining, based on sensor data accessed by the provider computing device and responsive to the configuration, that a condition is met to use the provider computing device to provide the street-level image data.

14. A system comprising:

- at least one provider computing device, associated with a vehicle, with at least one hardware processor, wherein the provider computing device controls a camera positioned to capture street-level imagery near the vehicle;

- a server computer system with at least one hardware processor that: identifies the provider computing device;

- determines a configuration for the provider computing device, wherein the configuration is configured to control the provider computing device to capture the street-level imagery, wherein the provider computing device is one of a set of provider computing devices that are collectively configured to meet a collection objective, and wherein determining the configuration comprises: receiving capability data from the provider computing device associated with the vehicle and capability data from at least one alternate provider computing device associated with an alternate vehicle; selecting the configuration based on the capability data from the provider computing device and the capability data from the alternate provider computing device; and

- sending, by the server computer system, the configuration to the provider computing device, wherein the provider computing device captures street-level image data in response to receiving the configuration;

- sends the configuration to the provider computing device; and

- receives, from the provider computing device, street-level image data captured by the provider computing device using the camera responsive to the configuration; and

- wherein the provider computing device provides street-level image data to the server computer system responsive to the configuration sent by the server computer system to the provider

computing device.

15. The system of claim 14, wherein the configuration controls use of the provider computing device to provide street-level image data based at least in part on sensor data received by the provider computing device.

16. The system of claim 15, wherein: the sensor data indicates a geolocation of the provider computing device; and the configuration specifies at least one geolocation associated with a rule for controlling use of the provider computing device to provide street-level image data.

17. A non-transitory computer-readable medium comprising one or more computer-readable instructions that, when executed by at least one processor of a computing device, cause the computing device to:

identify, by a server computer system, a provider computing device for use in capturing street-level imagery, wherein the provider computing device controls a camera positioned to capture street-level imagery near a vehicle associated with the provider device;

determine, by the server computer system, a configuration for the provider computing device, wherein the configuration is configured to control the provider computing device to capture the street-level imagery, wherein the provider computing device is one of a set of provider computing devices that are collectively configured to meet a collection objective, and wherein determining the configuration comprises:

receiving capability data from the provider computing device associated with the vehicle and capability data from at least one alternate provider computing device associated with an alternate vehicle;

selecting the configuration based on the capability data from the provider computing device and the capability data from the alternate provider computing device; and

sending, by the server computer system, the configuration to the provider computing device, wherein the provider computing device captures street-level image data in response to receiving the configuration.

18. The non-transitory computer-readable medium of claim 17, wherein the configuration controls use of the provider computing device to provide street-level image data based at least in part on sensor data received by the provider computing device.

19. The non-transitory computer-readable medium of claim 18, wherein: the sensor data indicates a geolocation of the provider computing device; and the configuration specifies at least one

geolocation associated with a rule for controlling use of the provider computing device to provide street-level image data.