CLAIMS

1. A method comprising:

determining, by a field device, that a period of time between an update time and a previous update time satisfies a duration threshold;

determining a device location associated with the field device, the device location comprising a device position and an indication of device movement;

determining, by the field device, a distance between the device location associated with the update time and a previous location transmitted to a state management server by the field device and associated with the previous update time;

generating, based at least on the distance exceeding a distance threshold, a location update comprising the device location of the field device and a set of device conditions associated with the field device;

transmitting, via a communication interface connected to a communication network, the location update to the state management server; and

causing the state management server to update a device state based at least on the location update transmitted by the field device, the device state associated with an update frequency and the set of device conditions.

2. The method of claim 1, further comprising:

determining, by the field device, that an additional period of time between an additional update time and the update time satisfies the duration threshold;

determining an additional device location associated with the field device;

determining, by the field device, an additional distance between the additional device location associated with the additional update time and the device location associated with the update time;

determining, based at least on the distance threshold being greater than the additional distance, to suppress an additional location update; and

causing, based at least on the additional location update being suppressed, the state management server to update the device state.

3. The method of claim 2, wherein determining to suppress the additional location update

further comprises reverting to a standby state.

4. The method of claim 1, further comprising:

determining, by the field device, that an additional period of time between an additional update time and the update time satisfies the duration threshold;

determining an additional device location associated with the field device;

determining, by the field device, an additional distance between the additional device location associated with the additional update time and the device location associated with the update time;

generating, based at least on the distance threshold being greater than the additional distance, an additional location update comprising a stationary device notification associated with the field device;

transmitting, via the communication interface connected to the communication network, the additional location update to the state management server; and

causing the state management server to update the device state based at least on the additional location update transmitted by the field device, wherein the stationary device notification causes the update frequency to be updated to a stationary update frequency and the field device to be associated with a standby status.

5. The method of claim 4, wherein the additional location update further comprises at least one of an indication that a set of location updates will be suppressed by the field device or an update timestamp associated with a scheduled location update to be transmitted by the field device.

6. The method of claim 1, wherein the field device is a body worn camera associated with a law enforcement officer.

7. The method of claim 1, wherein:

the duration threshold is a first duration threshold configured to trigger a suppressible location update evaluation; and

a second duration threshold, greater than the first duration threshold, is configured to

trigger a mandatory location update.

8. The method of claim 7, further comprising:

determining that an additional period of time between an additional update time and the update time exceeds the second duration threshold;

generating, based at least on the additional period of time exceeding the second duration threshold, an additional location update comprising an additional device location of the field device and an additional set of device conditions associated with the field device; and

transmitting, via the communication interface connected to the communication network, the additional location update to the state management server.

9. A system, comprising:

a field device, the field device configured to:

determine a device location and a timestamp associated with the device location;

generate a location update based at least on the device location and the timestamp; and

determine, based at least on a comparison of the location update with a previous location update, whether the location update is transmitted via a communication network to a state management server; and

the state management server, the state management server configured to:

receive the location update from the field device;

manage a device state associated with the field device, the device state associated with a current assignment of the field device, an activity indicator of the field device, and an update configuration of the field device; and

update the device state based at least on the location update.

10. The system of claim 9, wherein the field device comprises a location determining component configured as at least one of a global navigation satellite system and a Wi-Fi positioning system.

11. The system of claim 9, wherein the update configuration of the field device comprises an

update schedule that includes one or more timestamps associated with one or more scheduled updates to be received from the field device.

12. The system of claim 9, wherein generating the location update based at least on the device location and the timestamp further comprises:

determining a previous location associated with the previous location update transmitted by the field device;

determining a device movement status based at least on the previous location and the device location; and

determining a previous location type associated with the previous location and a location type associated with the device location.

13. The system of claim 12, wherein determining whether the location update is transmitted further comprises:

determining a period of time that elapsed between the previous location was generated and the device location was generated; and

determining that the location update is transmitted based at least on the period of time exceeding a threshold duration.

14. The system of claim 12, wherein determining whether the location update is transmitted further comprises:

determining a distance between the previous location and the device location;

determining a set of distance thresholds based at least on the previous location type and the location type; and

determining that the location update is transmitted based at least on the distance satisfying the set of distance thresholds.

15. The system of claim 14, wherein the set of distance thresholds comprises a travel distance threshold and a velocity threshold.

16. The system of claim 12, wherein determining whether the location update is transmitted

further comprises determining that the device movement status indicates the field device is stationary and determining that the location update is suppressed based at least on the field device being stationary.

17. A method comprising:

determining, by a field device, that a period of time between an update time and a previous update time satisfies a duration threshold;

determining, by the field device, a set of device conditions associated with a user utilization of the field device;

determining, by the field device, an update schedule for the field device, the update schedule determined from a set of internal criteria and the set of device conditions;

generating, based at least on the period of time satisfying the duration threshold, a device update comprising the set of device conditions and the update schedule;

transmitting, via a communication network, the device update to a state management server; and

causing, based at least on the device update, the state management server to update a field device state to incorporate the update schedule and the set of device conditions.

18. The method of claim 17, further comprising:

determining, by the field device, that an additional period of time between an additional update time and the update time satisfies the duration threshold;

determining, by the field device, an additional set of device conditions associated with the user utilization of the field device;

determining that the additional set of device conditions satisfies an update threshold associated with the set of internal criteria;

generating, by the field device, an unscheduled device update comprising the additional set of device conditions and a revised update schedule;

transmitting, via the communication network, the unscheduled device update to the state management server; and

causing, based at least on the unscheduled device update, the state management server to update the field device state to incorporate the revised update schedule and the additional set of

device conditions.

19. The method of claim 18, wherein:

the additional update time occurs after the update time and before a scheduled update time associated with the update schedule.; and

receipt of the unscheduled device update causes the state management server to update the field device state from a standby state to an active state.

20. The method of claim 18, wherein the duration threshold is associated with a default update period that triggers an evaluation of the set of device conditions and the additional set of device conditions against the set of internal criteria independent of the update schedule.

21. The method of claim 17, further comprising:

determining, by the field device, that an additional period of time between an additional update time and the update time satisfies the duration threshold;

determining, by the field device, an additional set of device conditions associated with the user utilization of the field device;

determining that the additional set of device conditions satisfies an update threshold associated with the set of internal criteria; and

determining, based at least on the additional set of device conditions satisfying the update threshold, that transmission of an unscheduled device update to the state management server is to be suppressed.

22. The method of claim 17, further comprising:

determining, by the field device, that an additional period of time between a scheduled update time and the update time satisfies a scheduled duration threshold;

determining, based at least on the field device, an additional set of device conditions associated with the user utilization of the field device;

determining, by the field device, a revised update schedule for the field device, the revised update schedule determined from the set of internal criteria and the additional set of device conditions;

generating, based at least on the scheduled update time, a scheduled device update comprising the additional set of device conditions and the revised update schedule;

transmitting, via the communication network, the scheduled device update to the state management server; and

causing, based at least on the scheduled device update, the state management server to update the field device state to incorporate the revised update schedule and the additional set of device conditions.