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 system, comprising:

a communication interface;

one or more processing circuits; and

a memory storing one or more instructions that are executable by the one or more processing circuits to perform a set of operations, the set of operations comprising:

configuring, for a field device, a set of update criteria cause the field device to generate one or more location updates;

updating the field device with the set of update criteria;

receiving a initialize indication from the field device, the initialize indication indicating that the field device has been activated;

receiving a location update of the one or more location updates, the location update comprising a device location and a device state;

determining, based at least on the device location and the device state, a scheduled update and a device utilization from the set of update criteria associated with the field device; and

updating a device status with the scheduled update and the device utilization.

18. The system of claim 17, wherein the set of update criteria comprises a decision tree that identifies one or more distance thresholds and one or more velocity thresholds for generation of the one or more location updates by the field device.

19. The system of claim 17, wherein updating the field device with the set of update criteria further comprises:

connecting with the field device;

verifying an internal set of update criteria associated with the field device; and

replacing the internal set of update criteria with the set of update criteria.

20. The system of claim 17, wherein the initialize indication further indicates that the field device has been assigned to a user and has been activated for utilization by the user.

21. The system of claim 17, wherein the initialize indication further comprises an initial location and an initial device state associated with the field device.

22. The system of claim 17, wherein the device state comprises at least one of:

a stationary device indication;

a recording state indication;

a connected devices indication; or

an internal state indication.

23. The system of claim 17, wherein the scheduled update is associated with a scheduled time that the scheduled update is received from the field device, the scheduled time determined based at least on the device state of the location update.

24. The system of claim 17, wherein the device utilization indicates whether the field device is associated with an active event.

25. The system of claim 17, updating the device status with the scheduled update and the device utilization further comprises displaying, via a user interface, the device status and the device utilization.

26. 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.

27. The method of claim 26, 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.

28. The method of claim 27, 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.

29. The method of claim 27, 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.

30. The method of claim 26, 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.

31. The method of claim 26, 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.

32. The method of claim 26, wherein the set of device conditions comprises:

a field device location;

a field device velocity;

a field device signal strength;

a field device network;

a recording status associated with the field device; and

a live-stream availability associated with the field device.

33. A system, comprising:

a communication interface;

one or more processing circuits; and

a memory storing one or more instructions that are executable by the one or more processing circuits to perform a set of operations, the set of operations comprising:

receiving a initialize indication from a field device, the initialize indication indicating that the field device has been activated;

determining a device update schedule based at least on a field device configuration associated with the field device and the initialize indication;

receiving, from the field device, a field device update associated with the device update schedule, the field device update comprising a set of device conditions and a revised update schedule;

modifying the device update schedule to incorporate the revised update schedule associated with the field device; and

determining, based at least on the set of device conditions, a device state associated with the field device and utilization of the field device by a field user.

34. The system of claim 33, wherein the device state associated with the field device comprises at least one of:

a device assignment;

a device location;

signal strength information;

an active event association; and

a device availability indication.

35. 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 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 set of device conditions reported by the field device; and

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

36. The system of claim 35, wherein the field device is further configured to:

determine that a period of time between the timestamp and a previous timestamp satisfies a duration threshold;

determine a distance between the device location and a previous location associated with the previous timestamp;

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

transmit the location update to the state management server.

37. The system of claim 36, wherein the field device is further configured to:

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

determine, from a set of update criteria and the set of device conditions, an update schedule for the field device;

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

38. The system of claim 36, wherein the field device is further configured to:

determine that an additional period of time between an additional timestamp and the

timestamp satisfies the duration threshold;

determine, by the field device, an additional distance between an additional device location associated with the additional timestamp and the device location associated with the timestamp; and

determine, based at least on the distance threshold being greater than the additional distance, to modify provisioning of an additional location update to the state management server, modifying the additional location update comprising at least one of:

suppressing transmission of the additional location update to the state management server;

configuring the additional location update as a stationary device notification that causes the state management server to configure an update schedule of the field device as a stationary update schedule;

one or more indications of one or more future updates that will be suppressed by the field device; or

one or more additional indications of an update timestamp for a scheduled location update.

39. The system of claim 36, 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.

40. The system of claim 35, wherein the state management server is further configured to:

configure, for the field device, a set of update criteria that cause the field device to generate the location update;

provide the set of update criteria to the field device, the set of update criteria configured to cause the field device to provide the set of update criteria with the location update;

receive a initialize indication from the field device, the initialize indication indicating that the field device has been activated;

determine, based at least on the location update, a scheduled update and a device

utilization from the set of update criteria associated with the field device; and

update a device status with the scheduled update and the device utilization.

41. The system of claim 40, wherein:

the set of update criteria comprises a decision tree that identifies one or more distance thresholds and one or more velocity thresholds for generation of one or more location updates by the field device; and

the state management server provides the set of update criteria by verifying an internal set of update criteria associated with the field device and replacing the internal set of update criteria with the set of update criteria.

42. The system of claim 35, wherein the field device is further configured to:

determine that a period of time between the timestamp and a previous timestamp satisfies a duration threshold;

determine the set of device conditions associated with a user utilization of the field device;

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

generate, based at least on the period of time satisfying the duration threshold, the location update comprising the set of device conditions and the update schedule.

43. The system of claim 42, wherein the field device is further configured to:

determine that an additional period of time between an additional timestamp and the timestamp satisfies the duration threshold;

determine an additional set of device conditions associated with the user utilization of the field device;

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

generate, based at least on the update threshold being satisfied, an unscheduled device update comprising the additional set of device conditions and a revised update schedule; and

transmit, via the communication network, the unscheduled device update to the state

management server.

44. The system of claim 35, wherein the field device is further configured to:

determine that an additional period of time between an additional timestamp and the timestamp satisfies a duration threshold;

determine an additional set of device conditions associated with a user utilization of the field device;

determining that the additional set of device conditions satisfies an update threshold associated with a set of update 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.

45. The system of claim 35, wherein the state management server is further configured to:

receive a initialize indication from the field device, the initialize indication indicating that the field device has been activated;

determine a device update schedule based at least on a field device configuration associated with the field device and the initialize indication;

receive, from the field device, the location update associated with the device update schedule, the location update comprising the set of device conditions and a revised update schedule; and

modify the device update schedule to incorporate the revised update schedule associated with the field device.