

CLAIMS

1. A system comprising:
 - at least one first sensor unit deployed in a first location proximate a region, wherein each sensor unit of the at least one first sensor unit is configured to detect a signal indicative of a specific person proximate to the sensor unit;
 - a memory configured to store data related to events;
 - a clock;
 - a processor configured to:
 - process the detected signals, wherein the processing comprises:
 - identifying an event related to presence of the specific person at the first location based on the detected signal, wherein the event has an event type indicating a type of movement of the specific person with respect to the region; and
 - storing in the memory information indicating the identified event, the stored information including: the specific person, time information derived from the clock indicating when the identified event occurred and the event type of the event, wherein the storing comprises maintaining an event data set to indicate information that has previously been transmitted to the server and information to be transmitted to the server; and
 - a transmitter configured to transmit messages communicating events in the memory over a wide area network to a server.
2. The system of claim 1, further comprising:
 - a receiver configured to receive, from the server, a second message indicating event information derived from at least one second sensor unit deployed at a second location proximate the region.
3. The system of claim 2, wherein the event information in the second message identifies at least one second event related to presence of the specific person at the second location,

time information associated with the at least one second event, and identification information that uniquely identifies the specific person.

4. The system of claim 1, wherein the stored information indicating the identified event includes identification information and time information processed from tag detection signals associated with a plurality of sensor units including the at least one first sensor unit.

5. The system of claim 1, wherein identifying the event further comprises identifying that the specific person entered the region.

6. The system of claim 1, wherein identifying the event comprises identifying that the specific person exited the region.

7. The system of claim 1, in combination with the server, wherein the server is configured to:

compute a time difference between a first identified event and a second identified event based on messages received over the wide area network.

8. The system of claim 7, wherein the server is a cloud-based server further configured to:

receive messages communicating event data from a second sensor unit; and
compute the time difference based on a message received from a first sensor unit and a message received from a second sensor unit.

9. The system of claim 8, wherein the message from the first sensor unit is of IN type and the message from the second sensor unit is of OUT type.

10. The system of claim 1, wherein the system is adapted to configure the processor to identify an event based on information received over the wide area network from the server.

11. The system of claim 1, wherein identifying an event comprises identifying that an RFID tag associated with the specific person passed the at least one first sensor unit.

12. The system of claim 11, wherein identifying the event comprises determining the direction of motion of the specific person when passing the at least one first sensor unit.

13. At least one non-transitory computer-readable medium storing computer-executable instructions that, when executed, perform a method comprising:

receiving, over a wide area network, messages reporting information identified by a plurality of sensor units, wherein the information indicates an event identified by a sensor unit of the plurality of sensor units and comprises identification of a specific person, time information indicating when the identified event occurred and the event type of the event; and

processing the messages, wherein the processing comprises:

determining a time difference between an event indicated in a first message and a second message; and

determining, based on the received messages, information to configure the plurality of sensor units to identify an event.

14. The at least one non-transitory computer-readable medium of claim 13, wherein processing the messages comprises determining a duration of time that the specific person was within the region.

15. The at least one non-transitory computer-readable medium of claim 14, wherein determining the duration of time comprises computing a time difference based on messages received from the same sensor unit of the plurality of sensor units.

16. The at least one non-transitory computer-readable medium of claim 14, wherein determining the duration of time comprises computing a time difference based on messages received from different ones of the plurality of sensor units.

17. The at least one non-transitory computer-readable medium of claim 16, wherein:

the message from a first of the different ones of the plurality of sensor units comprises an event type corresponding to entry of the specific person into the region; and

the message from a second of the different ones of the plurality of sensor units comprises an event type corresponding to departure of the specific person from the region.

18. A method of operating a plurality of sensor units deployed at a plurality of locations proximate a region, wherein individual sensor units of the plurality of sensor units are configured to detect a signal indicative of a specific person proximate to the sensor unit, the method comprising:

processing the detected signals, wherein the processing comprises:

identifying an event related to presence of the specific person at the first location based on the detected signals from multiple sensor units of the plurality of sensor units, wherein the event has an event type indicating a type of movement of the specific person with respect to the region; and

transmitting messages communicating events in the memory over a wide area network to a server, wherein the transmitted information comprises, in association with each of the communicated events, an indication of the specific person, time information indicating when the identified event occurred and the event type of the event; and

at the server, processing the messages to determine for each of a plurality of specific persons, a duration of time that the specific person was within the region.

19. The method of claim 18, wherein identifying the event comprises determining the specific person is passing into or out of the region.

20. The method of claim 18, further comprising: receiving, over the wide area network, messages at a sensor unit of the plurality of sensor units, from a server, the messages containing information adapted to configure the sensor unit to identify events.