CLAIMS

What is claimed is:

1. A patient support apparatus comprising:

a support surface adapted to support a patient;

a first transceiver coupled to a first location on the patient support apparatus;

a second transceiver coupled to a second location on the patient support apparatus;

a third transceiver coupled to a third location on the patient support apparatus; and

a controller adapted to use radio frequency (RF) communication between the first, second, and third transceivers and an exit detection sensor to determine a position of the exit detection sensor relative to the patient support apparatus, the controller further adapted to receive an exit detection alert signal from the exit detection sensor; to determine if the exit detection sensor is positioned inside or outside of a volume of space; and, if the exit detection sensor is positioned inside the volume of space, to transmit an exit detection alert to an off-board recipient in response to receiving the exit detection alert signal from the exit detection sensor.

2. The patient support apparatus of claim 1 further comprising a nurse call system interface adapted to communicate with a nurse call system outlet integrated into a wall of a healthcare facility, wherein the nurse call system outlet includes a plurality of electrical pins and wherein the controller is adapted to transmit the exit detection alert to the off-board recipient by changing an electrical state of a pin of the nurse call system outlet.

3. The patient support apparatus of claim 2 wherein the nurse call system interface is adapted to communicate with the nurse call system outlet by wireless or wired communication.

4. The patient support apparatus of claim 1 wherein the controller is further adapted to use radio frequency (RF) communication between the first, second, and third transceivers and a second patient support apparatus to determine if the second patient support apparatus is positioned inside or outside of a second volume of space.

5. The patient support apparatus of claim 1 wherein the exit detection sensor includes a pressure sensing pad adapted to be positioned underneath the patient.

6. The patient support apparatus of claim 5 wherein the pressure sensing pad is adapted to be removable from the patient support apparatus and positioned on a support surface of second patient support apparatus.

7. The patient support apparatus of claim 1 wherein the first transceiver, the second transceiver, and the third transceiver are all ultra-wideband transceivers.

8. The patient support apparatus of claim 7 further including a memory in which the first location, the second location, and the third location of the first, second, and third transceivers, respectively, is stored.

9. The patient support apparatus of claim 8 wherein the controller is further adapted to use the stored locations of the first, second, and third transceivers to determine whether the exit detection sensor is positioned inside or outside of the volume of space.

10. The patient support apparatus of claim 1 wherein the controller is further adapted, if the exit detection sensor is positioned outside the volume of space, to not transmit the exit detection alert to the off-board recipient in response to receiving the exit detection alert signal from the exit detection sensor.

11. The patient support apparatus of claim 1 wherein the controller is further adapted to use RF communication between the first, second, and third transceivers and a fixed locator to determine a position of the patient support apparatus relative to the fixed locator.

12. The patient support apparatus of claim 11 wherein the controller is further adapted to receive an identifier from the fixed locator, to determine if the patient support apparatus is positioned within a threshold distance to the fixed locator, and to forward the fixed locator identifier to a server if the patient support apparatus is positioned within the threshold distance.

13. The patient support apparatus of claim 12 wherein the off-board recipient includes the fixed locator if the patient support apparatus is positioned within the threshold distance.

14. The patient support apparatus of claim 13 further comprising a microphone positioned onboard the patient support apparatus, the microphone adapted to convert sounds of the patient's voice to audio signals, and wherein the controller is further adapted to transmit the audio signals to the

fixed locator if the fixed locator is positioned within the threshold distance, and to not transmit the audio signals to the fixed locator if the fixed locator is positioned outside of the threshold distance.

15. The patient support apparatus of claim 1 wherein the off-board recipient is a nurse call system outlet integrated into a wall of a healthcare facility.

16. The patient support apparatus of claim 1 wherein the controller is further adapted to use radio frequency (RF) communication between the first, second, and third transceivers and an object to determine a second position of the object relative to the patient support apparatus; to determine if the object is positioned inside or outside of a second volume of space; to use RF communication between the first, second, and third transceivers and a fixed locator to determine a third position of the patient support apparatus relative to the fixed locator; to determine if the patient support apparatus and the fixed locator are positioned within a threshold distance of each other; and, if both the object is positioned inside the second volume of space and the fixed locator and the patient support apparatus are positioned within the threshold distance of each other, to forward location information to a server indicating a location of the object within a healthcare facility.

17. The patient support apparatus of claim 16 wherein the controller is further adapted to use the position of the exit detection sensor and the second position of the object to determine if the exit detection sensor is coupled to the object.

18. The patient support apparatus of claim 17 wherein the location information indicates that the object and the patient support apparatus are positioned in a common room of the healthcare facility.

19. The patient support apparatus of claim 1 wherein the controller is further adapted to use radio frequency (RF) communication between the first, second, and third transceivers and a tag coupled to a nurse call device to determine a position of the nurse call device relative to the patient support apparatus, the controller further adapted to receive a nurse call signal from the nurse call device; to determine if the nurse call device is positioned inside or outside of the volume of space; and, if the nurse call device is positioned inside the volume of space, to transmit the nurse call signal to a nurse call system in response to receiving the nurse call signal from the nurse call device.

20. The patient support apparatus of claim 19 further comprising a nurse call system interface adapted to communicate with a nurse call system outlet integrated into a wall of a healthcare

facility, wherein the nurse call system outlet includes a plurality of electrical pins and wherein the controller is adapted to transmit the nurse call signal to the nurse call system by changing an electrical state of a pin of the nurse call system outlet.