

What is claimed is:

1. A modular system for wireless communication, comprising:

first and second sensors for generating first and second sensor data, respectively;

first and second sensor modules that are connected to the first and second sensors for receiving the first and second sensor data, respectively;

a first communication device that is connected to the second sensor module for receiving the second sensor data, wherein the first communication device is independent of a wireless transceiver and incapable of wireless communication; and

a second communication device, wherein the second communication device comprises:

a first plurality of connectors including first and second connectors;

a communication bus that is configured to communicate with the first sensor module and the first communication device by way of the first and second connectors, respectively, wherein the first communication device is connected to the second connector by way of a wired connection interface;

a processor that is configured to receive the first and second sensor data from the first sensor module and the first communication device, respectively, by way of the communication bus, and the first and second connectors; and

a wireless transceiver that is configured to transmit the first and second sensor data to a third communication device.

2. The modular system of claim 1, wherein the first communication device is connected to the second communication device by means of a daisy-chain connection, wherein the first communication device is capable of connecting to a fourth communication device that is similar to the first communication device by means of the daisy-chain connection, and wherein a count of sensor modules that are communicatively coupled to the second communication device is expandable by way of the daisy-chain connection.

3. The modular system of claim 1, wherein the second communication device further comprises a first housing that encloses at least the communication bus, the processor, and

the wireless transceiver, and wherein the first housing has a first plurality of slots for the first plurality of connectors.

4. The modular system of claim 3, wherein the first communication device comprises a second housing that has a second plurality of slots for a second plurality of connectors including third and fourth connectors.
5. The modular system of claim 3, wherein the first and second sensor modules are enclosed in second and third housings, respectively.
6. The modular system of claim 5, wherein the first sensor is included in the second housing.
7. The modular system of claim 5, wherein the first sensor is external to the second housing, and wherein the first sensor is connected to the first sensor module by way of a wired connection interface.
8. The modular system of claim 1, wherein the first communication device is a network node, and wherein the second communication device is a network hub, and wherein the third communication device is a network gateway.
9. The modular system of claim 1, wherein the processor is further configured to communicate with a mobile computing device over a wireless communication network for activating at least one of the first and second sensors.
10. The modular system of claim 1, wherein the communication bus is enabled with hot-swap functionality.
11. A modular apparatus for wireless communication, comprising:
 - a first plurality of connectors including first and second connectors;
 - a communication bus that is configured to communicate with a first sensor module and a first communication device by way of the first and second connectors, respectively, wherein the first communication device is independent of a wireless

transceiver and incapable of wireless communication, and wherein the first communication device is connected to the second connector by way of a wired connection interface;

a processor that is configured to:

5 receive first sensor data from the first sensor module by way of the communication bus and the first connector, wherein the first sensor module is connected to a first sensor for receiving the first sensor data, and wherein the first sensor generates the first sensor data; and

10 receive second sensor data from the first communication device by way of the communication bus and the second connector, wherein the first communication device is connected to a second sensor module for receiving the second sensor data, wherein the second sensor module is connected to a second sensor for receiving the second sensor data, and wherein the second sensor generates the second sensor data; and

15 a wireless transceiver that is configured to transmit the first and second sensor data to a second communication device.

12. The modular apparatus of claim 11, wherein the first communication device is connected to the modular apparatus by means of a daisy-chain connection, wherein the first
20 communication device is capable of connecting to a third communication device that is similar to the first communication device by means of the daisy-chain connection, and wherein a count of sensor modules that are communicatively coupled to the modular apparatus is expandable by way of the daisy-chain connection.

25 13. The modular apparatus of claim 11, further comprising a first housing that encloses at least the communication bus, the processor, and the wireless transceiver, wherein the first housing has a first plurality of slots for the first plurality of connectors.

30 14. The modular apparatus of claim 13, wherein the first communication device comprises a second housing that has a second plurality of slots for a second plurality of connectors including third and fourth connectors.

15. The modular apparatus of claim 13, wherein the first and second sensor modules are enclosed in second and third housings, respectively.

5 16. The modular apparatus of claim 15, wherein the first sensor is included in the second housing.

17. The modular apparatus of claim 15, wherein the first sensor is external to the second housing, and wherein the first sensor is connected to the first sensor module by way of a wired connection interface.

10 18. The modular apparatus of claim 11, wherein the second communication device is a network node, and wherein the second communication device is a network gateway.

15 19. The modular apparatus of claim 11, wherein the processor is further configured to communicate with a mobile computing device over a wireless communication network for activating at least one of the first and second sensors.

20. The modular apparatus of claim 11, wherein the communication bus is enabled with hot-swap functionality.