

What is claimed is:

1. A wireless tag comprising:
a wireless communication system;
a processor coupled to the wireless communications system;
an energy source coupled to the processor and the wireless communications system; and
at least one non-transitory processor-readable medium comprising instructions which, when
executed by the processor, configures the processor to perform operations comprising
processing data, storing the processed data, and controlling the wireless communication
system to transmit wireless messages,
wherein the wireless tag is configured to track an asset during delivery to a shipping address, and
after the asset has arrived at the shipping address, a user releases the wireless tag to a delivery
service to be delivered to a return address for recycling or renovating one or more
components of the wireless tag.
2. The wireless tag of claim 1, further comprising instructions to remove the wireless tag
from a sleeve on an asset and to reinsert the wireless tag into the sleeve wherein a back side of
the wireless tag is visible through the sleeve before releasing the wireless tag to a delivery
service, wherein the back side of the wireless tag comprises the shipping address and the return
address.
3. The wireless tag of claim 2, further comprising a pictogram on a front side of the wireless
tag depicting a series of steps comprising removing the wireless tag from the sleeve and
reinserting the wireless tag into the sleeve such that the back side of the wireless tag visible
through the sleeve.
4. The wireless tag of claim 1, wherein the energy source is a rechargeable battery
comprising terminals that connect to an external power source through a wired connection.
5. The wireless tag of claim 1, wherein the energy source is a rechargeable battery
comprising an internal radio frequency energy receiver that converts received external radio
frequency energy into electrical energy.

6. The wireless tag of claim 1, wherein the energy source is a rechargeable battery comprising a separate modular component that is configured to attach to and detach from one or more electrical components of the asset.
7. The wireless tag of claim 1, wherein the wireless communication system includes a Global Positioning System (GPS) transceiver system configured to communicate with a GPS satellite.
8. The wireless tag of claim 1, the wireless tag further comprising a sensor operable to generate data characterizing an environmental state of the asset in response to exposure to external stimulus.
9. A method of recycling a wireless tag, the method comprising:
 - receiving an asset carrying a wireless tag at a shipping address, the wireless tag comprising:
 - a back side comprising the shipping address and a return address;
 - a front side comprising instructions to remove the wireless tag from a sleeve on the asset and reinsert the wireless tag into the sleeve so that the back side of the wireless tag is visible through the sleeve before releasing the wireless tag to a delivery service; and
 - one or more electronic components;
 - removing the wireless tag from the sleeve on the asset and reinserting the wireless tag into the sleeve so that the back side of the wireless tag is visible through sleeve;
 - releasing the wireless tag to the delivery service;
 - receiving the wireless tag at the return address; and
 - renovating, at a renovation facility corresponding to the return address, at least one of the one or more electronic components in the wireless tag.
10. The method of claim 9, wherein the one or more electronic components comprises a rechargeable battery, the method comprising:

removing the rechargeable battery from the wireless tag; and
after renovating the rechargeable battery, incorporating the rechargeable battery in another
wireless tag.

11. The method of claim 10, wherein the renovating comprises recharging the rechargeable battery wirelessly.

12. The method of claim 11, wherein the recharging comprises receiving electrical energy converted from a radio frequency energy converter that converts external radio frequency energy received wirelessly into electrical energy.

13. The method of claim 10, wherein the renovating comprises connecting an external power source to terminals of the rechargeable battery through a wired connection.

14. The method of claim 10, wherein
the wireless tag comprises a modular component comprising the rechargeable battery and configured to attach and detach from the one or more electrical components of the wireless tag, and
the renovating comprises removing the modular component by detaching the modular component from the one or more electrical components of the wireless tag, and installing another modular component comprising another charged rechargeable battery by attaching the other modular component to the one or more electrical components of the wireless tag.

15. The method of claim 9, further comprising:
removing at least one of the one or more electronic components from the wireless tag; and
after renovating the at least one electronic component, incorporating the one or more renovated electronic components in another wireless tag.

16. A method comprising:

remotely monitoring, by a wireless tracking system, a performance of one or more electronic components of a wireless tag, the wireless tag associated with an asset and configured to wirelessly communicate with the wireless tracking system;
determining, by the wireless tracking system, that a performance level of the one or more electronic components is below a threshold level; and
transmitting, by the wireless system, a notification to a user to ship the wireless tag to a return address for renovation or recycling.

17. The method of claim 16, wherein the one or more electronic components comprises a rechargeable battery and the performance level of the rechargeable battery is based at least in part on a charge level of the rechargeable battery.

18. The method of claim 17, wherein the remotely monitoring the charge level of the rechargeable battery comprises wirelessly receiving the charge level of the rechargeable battery and a unique identifier of the rechargeable battery.

19. The method of claim 17, wherein:
the rechargeable battery is a separate modular component that is configured to attach to and detach from one or more electrical components of the wireless tag, and
the renovation or recycling of the wireless tag comprises:
removing the rechargeable battery from the wireless tag by detaching the separate modular component from the one or more electrical components; and
installing another rechargeable battery in the wireless tag that has a charge level above the threshold level by attaching the rechargeable battery to the one or more electrical components.

20. The method of claim 16, wherein the one or more electronic components comprises one or more of: a sensor, a processor, a communications system, a circuit or set of circuits.

21. The method of claim 20, wherein the renovation or recycling of the wireless tag comprises:

removing the one or more electronic components of the wireless tag; and
installing one or more replacement electronic components in the wireless tag, the one or
more replacement electronic components having a performance level about the
threshold value, by connecting the one or more replacement electronic
components to other components of the wireless tag.