CLAIMS

What is claimed is:

1. A wearable device for a pet comprising:

a band comprising a strap plate;

a housing including a removable battery component and an illumination device, wherein the illumination device is configured to illuminate based on a wellness assessment of the pet;

a curved tracking component coupled with the housing, wherein the curved tracking component is configured to conform to a portion of the pet's body and wherein the curved tracking component comprises one or more processors and one or more non-transitory memories; and

one or more sensors located within the curved tracking component,

wherein the removable battery component is configured to be removably attached to the tracking component,

wherein the wearable device is removably attached to the pet via the band,

wherein the tracking component is removably attached to the strap plate, and

wherein the one or more non-transitory memories further comprise instructions operable when executed by the one or more processors to cause the wearable device to:

collect sensor data from the one or more sensors;

detect a plurality of network conditions associated with a plurality of respective networks that the wearable device is connected to, wherein the wearable device communicates with a plurality of networked devices via the plurality of networks, and wherein the plurality of networked devices comprises at least a mobile device and a server;

determine, for each of the plurality of networks, a format, a frequency, and content of the sensor data for transmission based on the network condition corresponding to that network;

identify, based on the plurality of network conditions, one or more networked devices from the plurality of networked devices for data transmission;

transmit the sensor data comprising the determined content in the determined format according to the determined frequency to each of the identified networked devices via the network associated with that identified networked device;

generate, based on the sensor data, a wellness assessment of the pet, wherein the wellness assessment comprises a probability that the pet can be suffering from one or more of a disease or a health condition; and

illuminate the illumination device based on the generated wellness assessment of the pet.

2. The wearable device of claim 1, wherein the removable battery component comprises one or more contact units, wherein the tracking device comprises one or more receiving contact units, and wherein the one or more contact units are configured to contact the one or more receiving contact units.

3. The wearable device of claim 1 or 2, wherein the removable battery component comprises:

a top battery cover integrated with the removable battery component;

a bottom battery cover;

a battery component status indicator; and

a battery, wherein the battery component status indicator is positioned on the bottom cover of the removable battery component, wherein the battery component status indicator is positioned on a side surface of the bottom cover.

4. The wearable device according to any of claims 1–3, wherein the tracking component comprises:

a top tracking component cover;

a bottom tracking component cover; and

a tracking component status indicator.

5. The wearable device according to claim 4, wherein a surface of the bottom tracking component cover is at least partially curved relative to the strap plate, and wherein a tracking component side surface is located between the top tracking component cover and the bottom tracking component cover.

6. The wearable device according to claim 4, wherein the tracking component status indicator is positioned on the bottom tracking component cover.

7. The wearable device according to claim 4, wherein the tracking component status indicator or the battery component status indicator is configured to turn on after the wearable device has exited a geo-fence zone.

8. The wearable device according to claim 4, wherein the tracking component further comprising a first light sensor, wherein the removable battery component further comprises a second light sensor, and wherein the first light sensor and the second light sensor detect light that enters through a light pipe located at the bottom tracking component cover and the bottom battery cover.

9. The wearable device according to any of claims 1–8, wherein the tracking component further comprises one or more of an altimeter and a barometer for determining a location of the wearable device, and wherein the location includes an elevation.

10. The wearable device according to any of claims 1–9, wherein an adjustment mechanism, for securing the wearable device around the pet, is connected to the band, and

wherein the adjustment mechanism comprises one or more of:

a side-release buckle;

a strap;

a snap hook;

one or more D-rings; or

one or more O-rings.

11. The wearable device according to any of claims 1–10, wherein the one or more non-transitory memories further comprise instructions operable when executed by the one or more of the processors to cause the wearable device to:

enter a power-saving mode, wherein the power-saving mode restricts or delays the execution of one or more work items performed by the wearable device.

12. The wearable device according to any of claims 1–11, wherein the strap plate is attached to the band at one or more channels on opposing sides of the strap plate, and wherein at least part of the band passes through the one or more channels.

13. The wearable device according to any of claims 1 - 12, wherein the removable battery component is coupled to the strap plate by one or more pressure-based battery latches.

14. The wearable device according to any of claims 1–13, wherein the one or more non-transitory memories further comprise instructions operable when executed by the one or more processors to cause the wearable device to:

> determine, based on the sensor data, one or more health indicators of the pet; and wherein the determining of the one or more health indicators further includes generating, based on the one or more health indicators of the pet, the wellness assessment of the pet.

15. The wearable device according to claim 14, wherein the one or more health indicators includes one or more selected from the group of licking, scratching, itching, walking, sleep, and/or sleep disruption.

16. The wearable device according to claim 14, wherein the determining of the one or more health indicators is performed by at least one of the wearble device, one or more servers, or a cloud-computing platform.

17. The wearable device according to any of claims 1–16, wherein one or more non-transitory memories further comprise instructions operable when executed by onr or more of the processors to cause the wearable device to:

> receive a request to enter a power-saving mode, wherein the power-saving mode restricts or delays the execution of one or more work items performed by the wearable device.

18. The wearable device according to any of claims 1–17, wherein the removable battery component is configured to be charger via a wireless connection.

19. The wearable device according to claim 17, wherein the request to enter the power-saving mode is sent upon detection of one or more power-saving criteria.

20. The wearable device according to claim 19, wherein one or more power-saving criteria include the tracking device component not being connected to a Wireless local Area Network (“WLAN”).