

CLAIMS

What is claimed is:

1. An electronic shipping label for a shipping container, comprising:
 - a communication device configured to obtain from an electronic device a plurality of
 - 5 electronic image files that are stored on the electronic device and that represent shipping information associated with a plurality of legs that form a shipping itinerary;
 - a touch-screen display having one or more user interface elements configured to toggle among the plurality of electronic image files and initiate access to the shipping container; and
 - 10 a processor connected coupled to the communication device and the touch-screen display and being configured to:
 - obtain, from the electronic device and using the communication device, a first electronic image file from the plurality of electronic image files stored on the electronic device,
 - 15 render, on the touch-screen display, the first electronic image file during a first leg of the shipping itinerary, and
 - access a second electronic image file from the plurality of electronic image files or the shipping container when the one or more user interface elements are selected.
- 20 2. The electronic shipping label of claim 1, wherein processor is configured to:
 - obtain temperature monitoring data including a temperature within the shipping container; and
 - display, on the touch-screen display, the temperature within the shipping container.
- 25 3. The electronic shipping label of claim 1, further comprising:
 - a memory configured store a sequence of selections of the one or more user interface elements that accesses the shipping container when the one or more user interface elements are selected in the sequence.
- 30 4. The electronic shipping label of claim 1, wherein the one or more user interface elements include a plurality of buttons, each button with a different identifier, wherein the processor is configured to:
 - access the shipping container when the one or more buttons of the plurality of buttons

are pushed in the sequence.

5. The electronic shipping label of claim 1, wherein the communication device is configured to receive a current location of the shipping container, wherein the processor is configured to:
- access the second electronic image file when the current location of the shipping container is greater than a threshold distance from a first destination location associated with the first leg of the shipping itinerary.
6. The electronic shipping label of claim 1, wherein the touch-screen display is configured to be powered by a power source and to visually display the first electronic image file even if the power source has failed.
7. The electronic shipping label of claim 1, further comprising:
- a non-reflective flexible plastic cover that is configured to allow the plurality of image files underneath the non-reflective flexible plastic cover to be read by a laser of the electronic device.
8. A system for managing shipping of a shipping container, comprising:
- a web portal that monitors a shipping itinerary that has a plurality of legs;
- an electronic device in communication with the web portal and stores a plurality of electronic image files associated with the plurality of legs of the shipping itinerary; and
- an electronic shipping label having:
- a communication device configured to obtain from the electronic device the plurality of electronic image files that represent shipping information;
- a touch-screen display having one or more buttons configured to toggle among the plurality of electronic image files and provide access to the shipping container; and
- a processor coupled to the communication device and the touch-screen display and being configured to:
- obtain, from the electronic device and using the communication device, a first electronic image file from the plurality of electronic image files,
- render, on the touch-screen display, the first electronic image file during the

first leg of the shipping itinerary, and

access a second electronic image file from the plurality of electronic image files or the shipping container when the one or more buttons are pushed.

5 9. The system of claim 8, wherein the communication device communicates wirelessly with the electronic device.

10 10. The system of claim 8, wherein the electronic device causes the electronic shipping label to display at least one piece of information obtained by the electronic device during one or more legs of the shipping itinerary.

11. The system of claim 10, wherein the at least one piece of information is an internal temperature within the shipping container.

15 12. The system of claim 8, wherein the processor is configured to obtain, from the electronic device, a signal that triggers a display of an electronic image file based on being on a leg of the shipping itinerary.

20 13. The system of claim 8, wherein the touch-screen display is configured to be powered by a power source and to visually display the first image file even if the power source has failed.

25 14. The system of claim 8, wherein the electronic device is configured to determine a location of the shipping container and the processor is configured to render, on the touch-screen display, a second electronic image file during a second leg of the shipping itinerary when the location of the shipping container is a threshold distance away from a location associated with the first leg of the shipping itinerary.

30 15. The system of claim 8, wherein the electronic shipping label has a non-reflective flexible plastic cover that is configured to allow the plurality of image files underneath the non-reflective flexible plastic cover to be read by a laser of the electronic device.

16. The system of claim 8, wherein the touch-screen display is configured to be powered

by a power source and to visually display the first image file even if the power source has failed.

17. A system for managing shipping of a shipping container, comprising:
- 5 a web portal that monitors a shipping itinerary, the shipping itinerary having a plurality of legs that form the shipping itinerary;
- an electronic device in communication with the web portal and stores a plurality of electronic image files associated with the plurality of legs of the shipping itinerary;
- an electronic shipping label having:
- 10 a communication device for obtaining from the electronic device the plurality of electronic image files stored on the electronic device;
- a processor connected to the communication device and configured to:
- obtain, from the electronic device and using the communication device, a first electronic image file from the plurality of electronic image files
- 15 stored on the electronic device, and
- render the first electronic image file during the first leg of the shipping itinerary; and
- a display that visually displays the rendered first electronic image file that is to be read by a laser of the electronic device even if a power source that powers the display has
- 20 failed.

18. The system of claim 17, wherein the electronic device is affixed to the shipping container in proximity to the electronic shipping label and configured to:
- determine a location of the electronic device or shipping container,
- 25 determine a geo-fence surrounding a destination location of the first leg of the shipping itinerary,
- determine that the electronic device has exited the geo-fence surrounding the destination location of the first leg of the shipping itinerary based on the destination location and the location of the electronic device or shipping container; and
- 30 provide a second electronic image file or a signal to the electronic shipping label to indicate to the electronic shipping label to change to a second electronic image file of the plurality of electronic image files.

19. The system of claim 18, wherein the electronic shipping label is configured to:
receive the second electronic image file or the signal when the electronic device exits
the geo-fence; and
display the second electronic image.

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20. The system of claim 17, wherein the display has a plurality of user interface elements,
wherein the processor is configured to:

receive a plurality of selections of the plurality of user interface elements in an
ordered sequence, wherein the ordered sequence matches a stored sequence of selections of
the plurality of user interface elements;

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access the shipping container in response to a match of the ordered sequence and the
stored sequence; and

output, on the display, loading and unloading instructions of the shipping container.