Therefore, it would be desirable to have a method and apparatus that takes into account at least some of the issues discussed above, as well as other possible issues.

SUMMARY

According to an aspect of the present disclosure, there is provided an apparatus comprising a line replaceable unit in a vehicle connected to a number of systems of the vehicle and a network in a network data processing system of the vehicle; and

an information agent located in the line replaceable unit, wherein the information agent provides access to information received by the line replaceable unit to other line replaceable units in the vehicle, wherein the other line replaceable units are connected to another number of systems of the vehicle and the network.

According to another aspect of the present disclosure, there is provided an apparatus comprising a first line replaceable unit located in a vehicle, wherein the first line replaceable unit communicates with a first number of systems in the vehicle, and wherein a first system in the first number of systems is at least one of a first sensor system or a first control system; and an information agent located in the first line replaceable unit, wherein the information agent identifies information received from the first number of systems that correspond to a subscription for an application in a second line replaceable unit in the vehicle and sends the information identified to the application in the second line replaceable unit, wherein the second line replaceable unit communicates with a second number of systems in the vehicle different than the first number of systems, and wherein a second system in the second number of systems is at least one of a second sensor system or a second control system.

According to another aspect of the present disclosure there is provided an information management system comprising:

a first line replaceable unit located in a vehicle, wherein the first line replaceable unit communicates with a first number of systems in the vehicle, and wherein a first system in the first number of systems is at least one of a first sensor system or a first control system;

a second line replaceable unit that communicates with the first line replaceable unit, wherein the second line replaceable unit communicates with a second number of systems in the vehicle different than the first number of systems, and wherein a second system in the second number of systems is at least one of a second sensor system or a second control system;

an information agent in the first line replaceable unit, wherein the information agent identifies information received from the first number of systems that correspond to a request

from the second line replaceable unit and sends the information identified to the second line replaceable unit; and

a manager located in the second line replaceable unit, wherein the manager receives the information from the information agent and sends the information to an application in the second line replaceable unit.

According to another aspect of the present disclosure, there is provided a method for collecting information in a vehicle, the method comprising:

identifying, by a processor, the information received from a first number of systems at a first line replaceable unit in the vehicle using a number of connections to the first number of systems, wherein the information identified is requested information that is requested by an application in a second line replaceable unit in the vehicle, and wherein a first system in the first number of systems is at least one of a first sensor system or a first control system; and

sending, by the processor, the requested information to the application in the second line replaceable unit, wherein the second line replaceable unit communicates with a second number of systems in the vehicle different than the first number of systems, and wherein a second system in the second number of systems is at least one of a second sensor system or a second control system.

In one illustrative embodiment, an apparatus comprises an existing aircraft node and an information agent located in the existing aircraft node. The existing aircraft node is connected to a number of aircraft systems and a network in an aircraft network data processing system. The information agent is configured to provide access to information received by the existing aircraft node to other aircraft nodes in the aircraft network data processing system.

In another illustrative embodiment, an apparatus comprises an aircraft node and an information agent located in the aircraft node. The aircraft node is configured to be located in an aircraft and communicate with a number of aircraft systems in the aircraft. The information agent is configured to identify information received from the number of aircraft systems that correspond to a subscription for an application in a host aircraft node in the aircraft and send the information identified to the application in the host aircraft node.

In yet another illustrative embodiment, an information management system comprises an aircraft node, a host aircraft node, an information agent in the aircraft node, and a manager located in the host aircraft node. The aircraft node is configured to be located in an aircraft and communicate with a number of aircraft systems in the aircraft. The host aircraft node is configured to communicate with the aircraft node. The information agent is configured to

identify information received from the number of aircraft systems that correspond to a request from the host aircraft node in the aircraft and send the information identified to the host aircraft node. The manager is configured to process the information received from the information agent from the aircraft node and process the information received from the aircraft node.

In yet another illustrative embodiment, a method for collecting information in an aircraft is present. Information received from a number of aircraft systems at an aircraft node is identified using a number of connections to the number of aircraft systems. The information identified is requested information that is requested by an application in a host aircraft node. The requested information is sent to the application in the host aircraft node.

~~According to an aspect of the present disclosure t~~There is also provided an apparatus comprising an existing aircraft node connected to a number of aircraft systems and a network in an aircraft network data processing system, and an information agent located in the existing

aircraft node, wherein the information agent is configured to provide access to information received by the existing aircraft node to other aircraft nodes in the aircraft network data processing system.

The apparatus further includes wherein in being configured to provide access to the information received by the existing aircraft node to the other aircraft nodes in the aircraft network data processing system, the information agent is configured to identify the information received from the number of aircraft systems for an application using a subscription for the application in a host aircraft node in the other aircraft nodes and send the information identified to the application in the host aircraft node. The apparatus further includes wherein the subscription identifies at least one of a type of information, an event, and the application.

~~According to another aspect of the present disclosure t~~There is also provided an apparatus comprising an aircraft node configured to be located in an aircraft and communicate with a number of aircraft systems in the aircraft, and an information agent located in the aircraft node, wherein the information agent is configured to identify information received from the number of aircraft systems that correspond to a subscription for an application in a host aircraft node in the aircraft and send the information identified to the application in the host aircraft node.

The apparatus further includes the host aircraft node configured to receive the information from the aircraft node and send the information to the application. The apparatus further includes a manager located in the host aircraft node, wherein the manager is configured to receive a request from the application in the host aircraft node, communicate with the information agent to generate the subscription, receive the information from the information agent, and send the information to the application.

The apparatus further includes wherein in being configured to send the information to the application, the manager is configured to place the information into a data buffer for the application. The apparatus further includes wherein the information agent is configured to encrypt the information. The apparatus further includes wherein the subscription identifies at least one of a type of information, an event, and the application. The apparatus further includes wherein the aircraft node is a line replaceable unit. The apparatus further includes wherein an aircraft system in the number of aircraft systems is selected from one of a sensor system, a flight recorder, a navigation system, a flight control system, an environmental control system, and an engine system.

~~According to another aspect of the present disclosure t~~There is also provided an information management system comprising an aircraft node configured to be located in an aircraft and

communicate with a number of aircraft systems in the aircraft, a host aircraft node configured to communicate with the aircraft node, an information agent in the aircraft node, wherein the information agent is configured to identify information received from the number of aircraft systems that correspond to a request from the host aircraft node in the aircraft and send the information identified to the host aircraft node, and a manager located in the host aircraft node, wherein the manager is configured to process the information received from the information agent from the aircraft node and process the information received from the aircraft node.

The information management system further includes wherein the information agent is configured to encrypt the information. The information management system further includes wherein the aircraft node is a line replaceable unit. The information management system further includes wherein an aircraft system in the number of aircraft systems is selected from one of a sensor system, a flight recorder, a flight control system, an environmental control system, and an engine system.

~~According to another aspect of the present disclosure t~~There is also provided a method for collecting information in an aircraft, the method comprising identifying the information received from a number of aircraft systems at an aircraft node using a number of connections to the number of aircraft systems, wherein the information identified is requested information that is requested by an application in a host aircraft node, and sending the requested information to the application in the host aircraft node.

The method further includes wherein sending the requested information to the application in the host aircraft node comprises sending the requested information to the application in the host aircraft node using a network in an aircraft network data processing system. The method further includes wherein the identifying step and the sending step are performed by an information agent located in the aircraft node. The method further includes wherein the information agent is configured to provide access to the information received by the aircraft node to other aircraft nodes in an aircraft network data processing system. The method further includes wherein the information agent identifies the requested information using a subscription for the application.

The features and functions can be achieved independently in various embodiments of the present disclosure or may be combined in yet other embodiments in which further details can be seen with reference to the following description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS