valid. Regardless, if computer system **20** has not shut down the sensing device and/or the sensing device is not entirely inoperable, the process can be repeated for subsequently obtained sensor data.

[0048] In an illustrative application, asset **12** can comprise a remote sensor platform for monitoring, for example, water quality using a combination of sensing devices for acquiring data regarding physical, chemical, and/or biological parameters of the water. Asset **12** can be used to acquire sensor data **38** used for managing the natural resource (e.g., a coastal region, river, bay, and/or the like), public health and safety, and/or the like. Asset **12** can operate in an autonomous manner, e.g., relying exclusively on power generated locally from, for example, a set of solar panels that charge batteries. Asset **12** can communicate with other systems (e.g., user **14** and/or third party **16**) using any combination of one or more wireless communication solutions, such as radio and/or satellite links.

[0049] During normal operation of the asset **12**, computer system **20** can acquire and log sensor data **38** from the set of sensors in a predetermined manner and transmit the sensor data **38** for processing by a user **14** at specified times/time intervals, in response to an interrogation, and/or the like. As the sensor data **38** is acquired and logged, computer system **20** can monitor the quality of the sensor data **38** using a set of locally stored data quality parameters and quality assessment approaches and policies as described herein. When computer system **20** determines that sensor data **38** is suspect or invalid, computer system **20** can initiate one or more actions in response to the determination. For example, computer system **20** can: prevent the sensor data **38** from being logged, transmitted, and/or the like; generate a record of the invalid/suspect sensor data **38**; communicate a status of the asset **12** for use by a third party **16**, a user **14** (e.g., a maintenance system), and/or the like; initiate onboard actions, such as rerunning a sensor data acquisition process, initiating a cleaning/reset procedure, adjusting the operation of one or more related devices, and/or the like.

[0050] As described herein, embodiments of asset **12** and/or computer system **20** can provide various benefits over existing implementations of assets **12**. For example, computer system **20** can ensure that invalid sensor data **38** is never transmitted from asset **12**, thereby lowering the transmission load and cost (e.g., both to local power consumption and processing by other systems). Similarly, computer system **20** can enable the asset **12** to autonomously or semi-autonomously factor sensor characteristics and adjust the operation of sensing devices accordingly using intelligent processing located at or near the sensing devices. By handling and addressing problems as close as possible to the sensing device, the volume of the data stream provided for external processing and the complexity of its processing can be reduced. To this extent, external processing systems can rely on the data quality of the sensor data **38** received, without risk of unnecessarily triggering alarms and other actions related to public health, safety, and/or asset safety.

[0051] While shown and described herein as a method and system for managing a movable asset **12**, such as a platform, it is understood that aspects of the invention further provide various alternative embodiments. For example, in one embodiment, the asset **12** comprises a "smart" sensor having a set of I/O devices and computer system **20** integrated thereon. In this case, the computer system **20** can include a portion of the components shown in FIG. **2**. For example, computer system **20** can be implemented with components **36**A-**36**C. The smart sensor can be implemented as part of a larger system, and can ensure that only valid data is provided from the smart sensor for processing by the larger system. To this extent, use of such a smart sensor can enable the larger system to utilize the sensor data acquired by the smart sensor without requiring knowledge of how and/or resources devoted to ensure the integrity of the sensor data.

[0052] In another embodiment, the invention provides a computer program fixed in at least one computer-readable storage medium, which when executed, enables a computer system to manage a movable asset **12**. To this extent, the computer-readable storage medium includes program code, such as management program **30** (FIG. **1**), which implements some or all of a process described herein. It is understood that the term "computer-readable storage medium" comprises one or more of any type of tangible medium of expression, now known or later developed, from which a copy of the program code can be perceived, reproduced, or otherwise communicated by a computing device. For example, the computer-readable storage medium can comprise: one or more portable storage articles of manufacture; one or more memory/storage components of a computing device; paper; and/or the like.

[0053] In another embodiment, the invention provides a method of providing a copy of program code, such as management program **30** (FIG. **1**), which implements some or all of a process described herein. In this case, a computer system can process a copy of program code that implements some or all of a process described herein to generate and transmit, for reception at a second, distinct location, a set of data signals that has one or more of its characteristics set and/or changed in such a manner as to encode a copy of the program code in the set of data signals. Similarly, an embodiment of the invention provides a method of acquiring a copy of program code that implements some or all of a process described herein, which includes a computer system receiving the set of data signals described herein, and translating the set of data signals into a copy of the computer program fixed in at least one computer-readable storage medium. In either case, the set of data signals can be transmitted/received using any type of communications link.

[0054] In still another embodiment, the invention provides a method of generating an asset **12** (FIG. **1**) configured as described herein. In this case, a computer system, such as computer system **20** (FIG. **1**), can be obtained (e.g., created, maintained, made available, etc.) and one or more components for performing a process described herein can be obtained (e.g., created, purchased, used, modified, etc.) and deployed to the computer system. To this extent, the deployment can comprise one or more of: (1) installing program code on a computing device; (2) adding one or more computing and/or I/O devices to the computer system; (3) incorporating and/or modifying the computer system to enable it to perform a process described herein; and/or the like. The computer system can be installed on the asset **12** and integrated with the various I/O devices, power system, etc., on the asset **12**.

[0055] The foregoing description of various aspects of the invention has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form disclosed, and obviously, many modifications and variations are possible. Such modifications and variations that may be apparent to an individual in the art are included within the scope of the invention as defined by the accompanying claims.